



SEQUENCE LISTING

<110> STRYER, LUBERT
ZOZULYA, SERGEY

<120> RECEPTOR FINGERPRINTING, SENSORY PERCEPTION, AND
BIOSENSORS OF CHEMICAL SENSANTS

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<140> 09/886,055

<141> 2001-06-22

<150> 60/213,812

<151> 2000-06-22

<160> 522

<170> PatentIn Ver. 2.1

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<212> PRT

<213> Homo sapiens

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Gln Asp Glu His Gln Asn Leu Leu Phe Val Leu Phe Leu Gly Met Tyr
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Leu Val Thr Val Ile Gly Asn Gly Leu Ile Ile Val Ala Ile Ser Leu
50 55 60

Asp Thr Tyr Leu His Thr Pro Met Tyr Leu Phe Leu Ala Asn Leu Ser
65 70 75 80

Phe Ala Asp Ile Ser Ser Ile Ser Asn Ser Val Pro Lys Met Leu Val
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Asn Ile Gln Thr Lys Ser Gln Ser Ile Ser Tyr Glu Ser Cys Ile Thr
100 105 110

Gln Met Tyr Phe Ser Ile Val Phe Val Val Ile Asp Asn Leu Leu Leu
115 120 125

Gly Thr Met Ala Tyr Asp His Phe Val Ala Ile Cys His Pro Leu Asn
130 135 140

Tyr Thr Ile Leu Met Arg Pro Arg Phe Gly Ile Leu Leu Thr Val Ile
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Ser Trp Phe Leu Ser Asn Ile Ile Ala Leu Thr His Thr Leu Leu Leu

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Glu Leu Val Leu Phe Ile Val Gly Leu Ser Val Ile Ile Phe Pro Phe 210 215 220		
Thr Leu Ser Phe Phe Ser Tyr Val Cys Ile Ile Arg Ala Val Leu Arg 225 230 235 240		
Val Ser Ser Thr Gln Gly Lys Trp Lys Ala Phe Ser Thr Cys Gly Ser 245 250 255		
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Phe Phe Pro Ser Ser Thr His Pro Glu Asp Thr Asp Lys Ile Gly Ala 275 280 285		
Val Leu Phe Thr Val Val Thr Pro Met Ile Asn Pro Phe Ile Tyr Ser 290 295 300		
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 Thr Ser Gln Ser Leu Arg Ser Pro Met Tyr Phe Phe Leu Thr Phe Leu
 50 55 60
 Ser Leu Leu Asp Val Met Phe Ser Ser Val Val Ala Pro Lys Val Ile
 65 70 75 80
 Val Asp Thr Leu Ser Lys Ser Thr Thr Ile Ser Leu Lys Gly Cys Leu
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 Thr Gln Leu Phe Val Glu His Phe Phe Gly Gly Val Gly Ile Ile Leu
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 Leu Thr Val Met Ala Tyr Asp Arg Tyr Val Ala Ile Cys Lys Pro Leu
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 His Tyr Thr Ile Ile Met Ser Pro Arg Val Cys Cys Leu Met Val Gly
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 Gly Ala Trp Val Gly Gly Phe Met His Ala Met Ile Gln Leu Leu Phe
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 Met Tyr Gln Ile Pro Phe Cys Gly Pro Asn Ile Ile Asp His Phe Ile
 165 170 175
 Cys Asp Leu Phe Gln Leu Leu Thr Leu Ala Cys Thr Asp Thr His Ile
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 195 200 205

Phe Leu Ile Leu Ile Ala Ser Tyr Thr Val Ile Leu Cys Ser Leu Lys
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 260 265 270
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 Ile Gln Val Ser Ser Arg Leu His Thr Pro Met Tyr Phe Phe Leu Ser
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 His Leu Ser Ser Val Asp Phe Cys Tyr Ser Ser Ile Ile Val Pro Lys
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 Met Leu Ala Asn Ile Phe Asn Lys Asp Lys Ala Ile Ser Phe Leu Gly
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 Cys Met Val Gln Phe Tyr Leu Phe Cys Thr Cys Val Val Thr Glu Val
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 Phe Leu Leu Ala Val Met Ala Tyr Asp Arg Phe Val Ala Ile Cys Asn
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 Ala Ser Cys Cys Tyr Phe Cys Gly Thr Val Cys Ser Leu Ile His Leu
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 Cys Leu Ala Leu Arg Ile Pro Phe Tyr Arg Ser Asn Val Ile Asn His
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 Phe Phe Cys Asp Leu Pro Pro Val Leu Ser Leu Ala Cys Ser Asp Ile
 180 185 190
 Thr Val Asn Glu Thr Leu Leu Phe Leu Val Ala Thr Leu Asn Glu Ser
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 Val Thr Ile Met Ile Ile Leu Thr Ser Tyr Leu Leu Ile Leu Thr Thr
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 Ile Leu Lys Met Gly Ser Ala Glu Gly Arg His Lys Ala Phe Ser Thr
 225 230 235 240
 Cys Ala Ser His Leu Thr Ala Ile Thr Val Phe His Gly Thr Val Leu
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 Ser Ile Tyr Cys Arg Pro Ser Ser Gly Asn Ser Gly Asp Ala Asp Lys
 260 265 270
 Val Ala Thr Val Phe Tyr Thr Val Val Ile Pro Met Leu Asn Ser Val
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Val Thr Val Ala	Ser Val Phe Tyr	Thr Val Ala Ile	Pro Met Leu Asn			
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Pro Leu Ile Tyr	Ser Leu Arg Asn	Lys Asp Ile Asn	Asn Met Phe Glu			
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 tactgtgttc ctaatcctaa aacttctagc ctcatagtta cagtggcttc tgtgttttac 840
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<210> 13
 <211> 347
 <212> PRT
 <213> Homo sapiens

<400> 13

Met	Ser	Tyr	Phe	Tyr	Arg	Leu	Lys	Leu	Met	Lys	Glu	Ala	Val	Leu	Val
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Lys	Leu	Pro	Phe	Thr	Ser	Leu	Pro	Leu	Leu	Leu	Gln	Thr	Leu	Ser	Arg
			20					25					30		
Lys	Ser	Arg	Asp	Met	Glu	Ile	Lys	Asn	Tyr	Ser	Ser	Ser	Thr	Ser	Gly
		35					40					45			
Phe	Ile	Leu	Leu	Gly	Leu	Ser	Ser	Asn	Pro	Gln	Leu	Gln	Lys	Pro	Leu
	50					55					60				
Phe	Ala	Ile	Phe	Leu	Ile	Met	Tyr	Leu	Leu	Ala	Ala	Val	Gly	Asn	Val
65					70					75					80
Leu	Ile	Ile	Pro	Ala	Ile	Tyr	Ser	Asp	Pro	Arg	Leu	His	Thr	Pro	Met
				85					90					95	
Tyr	Phe	Phe	Leu	Ser	Asn	Leu	Ser	Phe	Met	Asp	Ile	Cys	Phe	Thr	Thr
			100					105					110		
Val	Ile	Val	Pro	Lys	Met	Leu	Val	Asn	Phe	Leu	Ser	Glu	Thr	Lys	Val
		115					120					125			
Ile	Ser	Tyr	Val	Gly	Cys	Leu	Ala	Gln	Met	Tyr	Phe	Phe	Met	Ala	Phe
	130					135					140				
Gly	Asn	Thr	Asp	Ser	Tyr	Leu	Leu	Ala	Ser	Met	Ala	Ile	Asp	Arg	Leu
145					150					155					160
Val	Ala	Ile	Cys	Asn	Pro	Leu	His	Tyr	Asp	Val	Val	Met	Lys	Pro	Arg
				165					170					175	
His	Cys	Leu	Leu	Met	Leu	Leu	Gly	Ser	Cys	Ser	Ile	Ser	His	Leu	His
		180						185					190		
Ser	Leu	Phe	Arg	Val	Leu	Leu	Met	Ser	Arg	Leu	Ser	Phe	Cys	Ala	Ser
		195					200					205			
His	Ile	Ile	Lys	His	Phe	Phe	Cys	Asp	Thr	Gln	Pro	Val	Leu	Lys	Leu
	210					215					220				
Ser	Cys	Ser	Asp	Thr	Ser	Ser	Ser	Gln	Met	Val	Val	Met	Thr	Glu	Thr
225					230					235					240
Leu	Ala	Val	Ile	Val	Thr	Pro	Phe	Leu	Cys	Ile	Ile	Phe	Ser	Tyr	Leu
				245					250					255	
Arg	Ile	Met	Val	Thr	Val	Leu	Arg	Ile	Pro	Ser	Ala	Ala	Gly	Lys	Trp
			260					265					270		

BEST AVAILABLE COPY

Lys Ala Phe Ser Thr Cys Gly Ser His Leu Thr Ala Val Ala Leu Phe
 275 280 285

Tyr Gly Ser Ile Ile Tyr Val Tyr Phe Arg Pro Leu Ser Met Tyr Ser
 290 295 300

Val Val Arg Asp Arg Val Ala Thr Val Met Tyr Thr Val Val Thr Pro
 305 310 315 320

Met Leu Asn Pro Phe Ile Tyr Ser Leu Arg Asn Lys Asp Met Lys Arg
 325 330 335

Gly Leu Lys Lys Leu Gln Asp Arg Ile Tyr Arg
 340 345

<210> 14
 <211> 1044
 <212> DNA
 <213> Homo sapiens

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 aactacagca gcagcacctc aggccttcac ctcctgggcc tctcttccaa ccctcagctg 180
 cagaaacctc tctttgccat cttcctcacc atgtacctgc tcgctgcggt ggggaatgtg 240
 ctcatcatcc cggccatcta ctctgacccc aggcctccaca cccctatgta cttttttctc 300
 agcaacttgt ctttcatgga tatctgcttc acaacagtca tagtgccctaa gatgctggtg 360
 aattttctat cagagacaaa gggtatctcc tatgtgggct gcctggccca gatgtacttc 420
 tttatggcat ttgggaacac tgacagctac ctgctggcct ctatggccat cgaccggctg 480
 gtggccatct gcaaccctt acactatgat gtggttatga aaccacggca ttgcctgctc 540
 atgctatttg gttcttgcag catctcccac ctacattccc tgttcgcgt gctacttatg 600
 tctcgcttgc ctttctgtgc ctctcacatc attagcact ttttctgtga caccagcct 660
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 actgtgctca gaatcccctc tgcagccggg aagtgggaagg ctttctctac ctgtggctcc 840
 cacctcactg cagtagccct tttctatggg agtattattt atgtctattt taggcccctg 900
 tccatgtact cagtggtag ggaccgggta gccacagtta tgtacacagt agtgacaccc 960
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<210> 15
 <211> 311
 <212> PRT
 <213> Homo sapiens

<400> 15
 Met Ala Thr Ser Asn His Ser Ser Gly Ala Glu Phe Ile Leu Ala Gly
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Leu Thr Gln Arg Pro Glu Leu Gln Leu Pro Leu Phe Leu Leu Phe Leu
 20 25 30

Gly Ile Tyr Val Val Thr Val Val Gly Asn Leu Gly Met Ile Phe Leu
 35 40 45

BEST AVAILABLE COPY

Ile Ala Leu Ser Ser Gln Leu Tyr Pro Pro Val Tyr Tyr Phe Leu Ser
 50 55 60
 His Leu Ser Phe Ile Asp Leu Cys Tyr Ser Ser Val Ile Thr Pro Lys
 65 70 75 80
 Met Leu Val Asn Phe Val Pro Glu Glu Asn Ile Ile Ser Phe Leu Glu
 85 90 95
 Cys Ile Thr Gln Leu Tyr Phe Phe Leu Ile Phe Val Ile Ala Glu Gly
 100 105 110
 Tyr Leu Leu Thr Ala Met Glu Tyr Asp Arg Tyr Val Ala Ile Cys Arg
 115 120 125
 Pro Leu Leu Tyr Asn Ile Val Met Ser His Arg Val Cys Ser Ile Met
 130 135 140
 Met Ala Val Val Tyr Ser Leu Gly Phe Leu Trp Ala Thr Val His Thr
 145 150 155 160
 Thr Arg Met Ser Val Leu Ser Phe Cys Arg Ser His Thr Val Ser His
 165 170 175
 Tyr Phe Cys Asp Ile Leu Pro Leu Leu Thr Leu Ser Cys Ser Ser Thr
 180 185 190
 His Ile Asn Glu Ile Leu Leu Phe Ile Ile Gly Gly Val Asn Thr Leu
 195 200 205
 Ala Thr Thr Leu Ala Val Leu Ile Ser Tyr Ala Phe Ile Phe Ser Ser
 210 215 220
 Ile Leu Gly Ile His Ser Thr Glu Gly Gln Ser Lys Ala Phe Gly Thr
 225 230 235 240
 Cys Ser Ser His Leu Leu Ala Val Gly Ile Phe Phe Gly Ser Ile Thr
 245 250 255
 Phe Met Tyr Phe Lys Pro Pro Ser Ser Thr Thr Met Glu Lys Glu Lys
 260 265 270
 Val Ser Ser Val Phe Tyr Ile Thr Ile Ile Pro Met Leu Asn Pro Leu
 275 280 285
 Ile Tyr Ser Leu Arg Asn Lys Asp Val Lys Asn Ala Leu Lys Lys Met
 290 295 300
 Thr Arg Gly Arg Gln Ser Ser
 305 310

<210> 16
 <211> 936
 <212> DNA
 <213> Homo sapiens

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<400> 16
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gggaacctgg gcatgatctt ctttaattgct ctcagttctc aactttaccc tccagtgtat 180
tattttctca gtcatttgtc tttcattgat ctctgctact cctctgtcat tacccttaag 240
atgctgggtga actttgttcc agaggagaac attatctcct ttctggaatg cattactcaa 300
ctttattttc tccttatttt tgtaattgca gaaggctacc ttctgacagc catggaatat 360
gaccgttatg ttgctatctg tcgcccactg ctttacaata ttgtcatgtc ccacaggggtc 420
tggtccataa tgatggctgt ggtataactca ctgggttttc tgtgggccac agtccatact 480
accgcgatgt cagtgttgct attctgtagg tctcatacgg tcagtcatta tttttgtgat 540
attctccctt tattgactct gtcttgctcc agcaccaca tcaatgagat tctgctgttc 600
attattggag gagttaatac cttagcaact acactggcgg tccttatctc ttatgctttc 660
attttctcta gtatccttgg tattcattcc actgaggggc aatccaaagc ctttggcact 720
tgtagctccc atctcttggc tgtgggcac ttttttgggt ctataacatt catgtatttc 780
aagccccctt ccagcactac tatggaaaaa gagaagggtg cttctgtgtt ctacatcaca 840
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<210> 17
<211> 313
<212> PRT
<213> Homo sapiens

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<400> 17
Met Leu Ala Arg Asn Asn Ser Leu Val Thr Glu Phe Ile Leu Ala Gly
 1             5             10             15

Leu Thr Asp Arg Pro Glu Phe Trp Gln Pro Phe Phe Phe Leu Phe Leu
      20             25             30

Val Ile Tyr Ile Val Thr Met Val Gly Asn Leu Gly Leu Ile Thr Leu
      35             40             45

Phe Gly Leu Asn Ser His Leu His Thr Pro Met Tyr Tyr Phe Leu Phe
      50             55             60

Asn Leu Ser Phe Ile Asp Leu Cys Tyr Ser Ser Val Phe Thr Pro Lys
      65             70             75             80

Met Leu Met Asn Phe Val Ser Lys Lys Asn Ile Ile Ser Asn Val Gly
      85             90             95

Cys Met Thr Arg Leu Phe Phe Phe Leu Phe Phe Val Ile Ser Glu Cys
      100             105             110

Tyr Met Leu Thr Ser Met Ala Tyr Asp Arg Tyr Val Ala Ile Cys Asn
      115             120             125

Pro Leu Leu Tyr Lys Val Thr Met Ser His Gln Val Cys Ser Met Leu
      130             135             140

Thr Phe Ala Ala Tyr Ile Met Gly Leu Ala Gly Ala Thr Ala His Thr
      145             150             155             160

Gly Cys Met Phe Arg Leu Thr Phe Cys Ser Ala Asn Ile Ile Asn His
      165             170             175

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Tyr Leu Cys Asp Ile Leu Pro Leu Leu Gln Leu Ser Cys Thr Ser Thr
 180 185 190
 Tyr Val Asn Glu Val Val Val Leu Ile Val Val Gly Thr Asn Ile Thr
 195 200 205
 Val Pro Ser Cys Thr Ile Leu Ile Ser Tyr Val Phe Ile Val Thr Ser
 210 215 220
 Ile Leu His Ile Lys Ser Thr Gln Gly Arg Ser Lys Ala Phe Ser Thr
 225 230 235 240
 Cys Ser Ser His Val Ile Ala Leu Ser Leu Phe Phe Gly Ser Ala Ala
 245 250 255
 Phe Met Tyr Ile Lys Tyr Ser Ser Gly Ser Met Glu Gln Gly Lys Val
 260 265 270
 Phe Ser Val Phe Tyr Thr Asn Val Val Pro Met Leu Asn Pro Leu Ile
 275 280 285
 Tyr Ser Leu Arg Asn Lys Asp Val Lys Val Ala Leu Arg Lys Ala Leu
 290 295 300
 Ile Lys Ile Gln Arg Arg Asn Ile Phe
 305 310

<210> 18
 <211> 942
 <212> DNA
 <213> Homo sapiens

<400> 18
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 ggcaaccctg gcttgatcac tcttttcggt ctaaattctc acctccacac accaatgtac 180
 tatttcctct tcaatctctc cttcattgat ctctgttact cctctgtttt cactcccaaa 240
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 ctgtttttct ttctcttttt cgtcatctct gaatgttaca tgttgacctc aatggcatat 360
 gatcgctatg tggccatctg taatccattg ctgtataagg tcaccatgtc ccatcaggtc 420
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 ggggtgcatgt ttagactcac cttctgcagt gctaatatca ttaaccatta cttgtgtgac 540
 atactcccc tcctccagct ttcctgcacc agcacctatg tcaacgaggt ggttggttctc 600
 attgttgtgg gtactaatat cacggtaccc agttgtacca tcctcatttc ttatgttttc 660
 attgtcacta gcattcttca tatcaaatcc actcaaggaa gatcaaaagc cttcagtact 720
 tgtagctctc atgtcattgc tctgtctctg ttttttgggt cagcggcatt catgtatatt 780
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<210> 19
 <211> 313
 <212> PRT
 <213> Homo sapiens

<400> 19
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 Leu Thr Asp Arg Pro Glu Phe Arg Gln Pro Leu Phe Phe Leu Phe Leu
 20 25 30
 Val Ile Tyr Ile Val Thr Met Val Gly Asn Leu Gly Leu Ile Ile Leu
 35 40 45
 Phe Gly Leu Asn Ser His Leu His Thr Pro Met Tyr Tyr Phe Leu Phe
 50 55 60
 Asn Leu Ser Phe Ile Asp Leu Cys Tyr Ser Ser Val Phe Thr Pro Lys
 65 70 75 80
 Met Leu Met Asn Phe Val Ser Lys Lys Asn Ile Ile Ser Tyr Val Gly
 85 90 95
 Cys Met Thr Gln Leu Phe Phe Phe Leu Phe Phe Val Ile Ser Glu Cys
 100 105 110
 Tyr Ile Leu Thr Ser Met Ala Tyr Asp Arg Tyr Val Ala Ile Cys Asn
 115 120 125
 Pro Leu Leu Tyr Lys Val Thr Met Ser His Gln Val Cys Ser Met Leu
 130 135 140
 Thr Phe Ala Ala Tyr Ile Met Gly Leu Ala Gly Ala Thr Ala His Thr
 145 150 155 160
 Gly Cys Met Leu Arg Leu Thr Phe Cys Ser Ala Asn Ile Ile Asn His
 165 170 175
 Tyr Leu Cys Asp Ile Leu Pro Leu Leu Gln Leu Ser Cys Thr Ser Thr
 180 185 190
 Tyr Val Asn Glu Val Val Val Leu Ile Val Val Gly Ile Asn Ile Met
 195 200 205
 Val Pro Ser Cys Thr Ile Leu Ile Ser Tyr Val Phe Ile Val Thr Ser
 210 215 220
 Ile Leu His Ile Lys Ser Thr Gln Gly Arg Ser Lys Ala Phe Ser Thr
 225 230 235 240
 Cys Ser Ser His Val Ile Ala Leu Ser Leu Phe Phe Gly Ser Ala Ala
 245 250 255
 Phe Met Tyr Ile Lys Tyr Ser Ser Gly Ser Met Glu Gln Gly Lys Val
 260 265 270
 Ser Ser Val Phe Tyr Thr Asn Val Val Pro Met Leu Asn Pro Leu Ile
 275 280 285
 Tyr Ser Leu Arg Asn Lys Asp Val Lys Val Ala Leu Arg Lys Ala Leu

290

295

300

Ile Lys Ile Gln Arg Arg Asn Ile Phe
305 310

<210> 20

<211> 942

<212> DNA

<213> Homo sapiens

<400> 20

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ggcaaccttg gcttgatcat tcttttcggt ctaaattctc acctccacac accaatgtac 180
tatttcctct tcaatctctc cttcattgat ctctgttact cctctgtttt cactcccaaa 240
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ctgtttttct ttctcttttt tgtcatctct gaatgctaca tattgacctc aatggcatat 360
gatcgctatg tggccatctg taatccattg ctgtataagg tcaccatgtc ccatcaggtc 420
tgttctatgc tcacttttgc tgcttacata atgggattgg ctggagccac ggcccacacc 480
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<210> 21

<211> 309

<212> PRT

<213> Homo sapiens

<400> 21

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Met Thr Leu Arg Asn Ser Ser Ser Val Thr Glu Phe Ile Leu Val Gly
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Leu Ser Glu Gln Pro Glu Leu Gln Leu Pro Leu Phe Leu Leu Phe Leu
 20            25            30
Gly Ile Tyr Val Phe Thr Val Val Gly Asn Leu Gly Leu Ile Thr Leu
 35            40            45
Ile Gly Ile Asn Pro Ser Leu His Thr Pro Met Tyr Phe Phe Leu Phe
 50            55            60
Asn Leu Ser Phe Ile Asp Leu Cys Tyr Ser Cys Val Phe Thr Pro Lys
 65            70            75            80
Met Leu Asn Asp Phe Val Ser Glu Ser Ile Ile Ser Tyr Val Gly Cys
 85            90            95
Met Thr Gln Leu Phe Phe Phe Cys Phe Phe Val Asn Ser Glu Cys Tyr
 100           105           110

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Val Leu Val Ser Met Ala Tyr Asp Arg Tyr Val Ala Ile Cys Asn Pro
 115 120 125
 Leu Leu Tyr Met Val Thr Met Ser Pro Arg Val Cys Phe Leu Leu Met
 130 135 140
 Phe Gly Ser Tyr Val Val Gly Phe Ala Gly Ala Met Ala His Thr Gly
 145 150 155 160
 Ser Met Leu Arg Leu Thr Phe Cys Asp Ser Asn Val Ile Asp His Tyr
 165 170 175
 Leu Cys Asp Val Leu Pro Leu Leu Gln Leu Ser Cys Thr Ser Thr His
 180 185 190
 Val Ser Glu Leu Val Phe Phe Ile Val Val Gly Val Ile Thr Met Leu
 195 200 205
 Ser Ser Ile Ser Ile Val Ile Ser Tyr Ala Leu Ile Leu Ser Asn Ile
 210 215 220
 Leu Cys Ile Pro Ser Ala Glu Gly Arg Ser Lys Ala Phe Ser Thr Trp
 225 230 235 240
 Gly Ser His Ile Ile Ala Val Ala Leu Phe Phe Gly Ser Gly Thr Phe
 245 250 255
 Thr Tyr Leu Thr Thr Ser Phe Pro Gly Ser Met Asn His Gly Arg Phe
 260 265 270
 Ala Ser Val Phe Tyr Thr Asn Val Val Pro Met Leu Asn Pro Ser Ile
 275 280 285
 Tyr Ser Leu Arg Asn Lys Asp Asp Lys Leu Ala Leu Gly Lys Thr Leu
 290 295 300
 Lys Arg Val Leu Phe
 305

<210> 22
 <211> 930
 <212> DNA
 <213> Homo sapiens

<400> 22
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 ggcaacttgg gcttgatcac cttaattggg ataaatccta gccttcacac ccccatgtac 180
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 gttgttggag taatcaccat gctatccagc ataagcatcg tcattcttta cgctttgata 660

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acatcttttc ctggctctat gaaccatggc agatttgcct cagtctttta caccaatgtg 840
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<210> 23

<211> 360

<212> PRT

<213> Homo sapiens

<400> 23

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Met Glu Arg Asn His Asn Pro Asp Asn Cys Asn Val Leu Asn Phe Phe
  1              5              10              15

Phe Ala Asp Lys Lys Asn Lys Arg Arg Asn Phe Gly Gln Ile Val Ser
          20              25              30

Asp Val Gly Arg Ile Cys Tyr Ser Val Ser Leu Ser Leu Gly Glu Pro
      35              40              45

Thr Thr Met Gly Arg Asn Asn Leu Thr Arg Pro Ser Glu Phe Ile Leu
  50              55              60

Leu Gly Leu Ser Ser Arg Pro Glu Asp Gln Lys Pro Leu Phe Ala Val
  65              70              75              80

Phe Leu Pro Ile Tyr Leu Ile Thr Val Ile Gly Asn Leu Leu Ile Ile
          85              90              95

Leu Ala Ile Arg Ser Asp Thr Arg Leu Gln Thr Pro Met Tyr Phe Phe
          100              105              110

Leu Ser Ile Leu Ser Phe Val Asp Ile Cys Tyr Val Thr Val Ile Ile
  115              120              125

Pro Lys Met Leu Val Asn Phe Leu Ser Glu Thr Lys Thr Ile Ser Tyr
  130              135              140

Gly Glu Cys Leu Thr Gln Met Tyr Phe Phe Leu Ala Phe Gly Asn Thr
  145              150              155              160

Asp Ser Tyr Leu Leu Ala Ala Met Ala Ile Asp Arg Tyr Val Ala Ile
          165              170              175

Cys Asn Pro Phe His Tyr Ile Thr Ile Met Ser His Arg Cys Cys Val
          180              185              190

Leu Leu Leu Val Leu Ser Phe Cys Ile Pro His Phe His Ser Leu Leu
  195              200              205

His Ile Leu Leu Thr Asn Gln Leu Ile Phe Cys Ala Ser Asn Val Ile
  210              215              220

His His Phe Phe Cys Asp Asp Gln Pro Val Leu Lys Leu Ser Cys Ser
  225              230              235              240

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Ser His Phe Val Lys Glu Ile Thr Val Met Thr Glu Gly Leu Ala Val
245 250 255

Ile Met Thr Pro Phe Ser Cys Ile Ile Ile Ser Tyr Leu Arg Ile Leu
260 265 270

Ile Thr Val Leu Lys Ile Pro Ser Ala Ala Gly Lys Arg Lys Ala Phe
275 280 285

Ser Thr Cys Gly Ser His Leu Thr Val Val Thr Leu Phe Tyr Gly Ser
290 295 300

Ile Ser Tyr Val Tyr Phe Gln Pro Leu Ser Asn Tyr Thr Val Lys Asp
305 310 315 320

Gln Ile Ala Thr Ile Ile Tyr Thr Val Leu Thr Pro Met Leu Asn Pro
325 330 335

Phe Ile Tyr Ser Leu Arg Asn Lys Asp Met Lys Gln Gly Leu Ala Lys
340 345 350

Leu Met His Arg Met Lys Cys Gln
355 360

<210> 24
<211> 1083
<212> DNA
<213> Homo sapiens

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gttagtttat ctttaggtga acccacaact atgggaagaa ataacctaac aagaccctct 180
gaattcatcc tccttggaact ctctctctga cctgaggatc agaagccgct ctttgctgtg 240
ttcctcccca tctaccttat cacagtata ggaaacctgc ttatcatcct ggccatccgc 300
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atttgctatg tgacagtcac tatccctaag atgctggtga acttcttatc agagacaaag 420
accatctctt acggtgagt tctgacctag atgtactttt tcttagcctt tggaaacaca 480
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attccacatt ttactccct cctgcacatt cttctgacta atcagctcat cttctgtgcc 660
tccaatgtca tccatcactt tttctgcgat gatcaaccag tgctaaaatt gtcctgttcc 720
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caaataagca caattatcta caccgtactg actcctatgc taaatccatt tatctatagt 1020
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taa 1083

<210> 25
<211> 312
<212> PRT
<213> Homo sapiens

<220>

<221> MOD_RES

<222> (273)

<223> Variable amino acid

<400> 25

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			20					25					30			
Ile	Phe	Tyr	Ile	Phe	Thr	Leu	Leu	Gly	Asn	Lys	Thr	Ile	Ile	Val	Leu	
		35					40					45				
Ser	His	Leu	Asp	Pro	His	Leu	His	Asn	Pro	Met	Tyr	Phe	Phe	Phe	Ser	
	50					55					60					
Asn	Leu	Ser	Phe	Leu	Asp	Leu	Cys	Tyr	Thr	Thr	Gly	Ile	Val	Pro	Gln	
65					70					75					80	
Leu	Leu	Val	Asn	Leu	Arg	Gly	Ala	Asp	Lys	Ser	Ile	Ser	Tyr	Gly	Gly	
			85						90					95		
Cys	Val	Val	Gln	Leu	Tyr	Ile	Ser	Leu	Gly	Leu	Gly	Ser	Thr	Glu	Cys	
			100					105					110			
Val	Leu	Leu	Gly	Val	Met	Ala	Phe	Asp	Arg	Tyr	Ala	Ala	Val	Cys	Arg	
		115					120					125				
Pro	Leu	His	Tyr	Thr	Val	Val	Met	His	Pro	Cys	Leu	Tyr	Val	Leu	Met	
	130					135					140					
Ala	Ser	Thr	Ser	Trp	Val	Ile	Gly	Phe	Ala	Asn	Ser	Leu	Leu	Gln	Thr	
145					150					155					160	
Val	Leu	Ile	Leu	Leu	Leu	Thr	Leu	Cys	Gly	Arg	Asn	Lys	Leu	Glu	His	
			165						170					175		
Phe	Leu	Cys	Glu	Val	Pro	Pro	Leu	Leu	Lys	Leu	Ala	Cys	Val	Asp	Thr	
			180					185					190			
Thr	Met	Asn	Glu	Ser	Glu	Leu	Phe	Phe	Val	Ser	Val	Ile	Ile	Leu	Leu	
		195					200					205				
Val	Pro	Val	Ala	Leu	Ile	Ile	Phe	Ser	Tyr	Ser	Gln	Ile	Val	Arg	Ala	
	210					215					220					
Val	Val	Arg	Ile	Lys	Ser	Ala	Thr	Gly	Gln	Arg	Lys	Val	Phe	Gly	Thr	
225					230					235					240	
Cys	Gly	Ser	His	Leu	Thr	Val	Val	Ser	Leu	Phe	Tyr	Gly	Thr	Ala	Ile	
				245					250					255		
Tyr	Ala	Tyr	Leu	Gln	Pro	Gly	Asn	Asn	Tyr	Ser	Gln	Asp	Gln	Gly	Lys	
			260				265						270			

Xaa Ile Ser Leu Phe Tyr Thr Ile Ile Thr Pro Met Ile Asn Pro Leu
 275 280 285

Ile Tyr Thr Leu Arg Asn Lys Asp Val Lys Gly Ala Leu Lys Lys Val
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Leu Trp Lys Asn Tyr Asp Ser Arg
 305 310

<210> 26
 <211> 939
 <212> DNA
 <213> Homo sapiens

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 gggaacaaaa ccatacattgt attatctcac ttggacccac atcttcacaa tcttatgtat 180
 tttttcttct ccaacctaag ctttttggat ctgtgttaca caaccggcat tgttccacag 240
 ctctctggta atctcagggg agcagacaaa tcaatctcct atgggtgggtg tgtagttcag 300
 ctgtacatct ctctaggctt gggatctaca gaatgcgttc tcttaggagt gatggcattt 360
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 tttgtcagtg tcattattct tcttgtacct gttgcattaa tcatattctc ctatagtcag 660
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<210> 27
 <211> 341
 <212> PRT
 <213> Homo sapiens

<400> 27
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 35 40 45
 Arg Val Ala Leu Phe Leu Thr Cys Leu Pro Val Tyr Leu Val Ser Leu
 50 55 60
 Leu Gly Asn Met Gly Met Ala Leu Leu Ile Arg Met Asp Ala Arg Leu
 65 70 75 80
 His Thr Pro Met Tyr Phe Phe Leu Ala Asn Leu Ser Leu Leu Asp Ala

85										90					95						
Cys	Tyr	Ser	Ser	Ala	Ile	Gly	Pro	Lys	Met	Leu	Val	Asp	Leu	Leu	Leu						
			100					105					110								
Pro	Arg	Ala	Thr	Ile	Pro	Tyr	Thr	Ala	Cys	Ala	Leu	Gln	Met	Phe	Val						
		115					120					125									
Phe	Ala	Gly	Leu	Ala	Asp	Thr	Glu	Cys	Cys	Leu	Leu	Ala	Ala	Met	Ala						
	130					135					140										
Tyr	Asp	Arg	Tyr	Val	Ala	Ile	Arg	Asn	Pro	Leu	Leu	Tyr	Thr	Thr	Ala						
145					150					155					160						
Met	Ser	Gln	Arg	Leu	Cys	Leu	Ala	Leu	Leu	Gly	Ala	Ser	Gly	Leu	Gly						
				165					170					175							
Gly	Ala	Val	Ser	Ala	Phe	Val	His	Thr	Thr	Leu	Thr	Phe	Arg	Leu	Ser						
			180					185					190								
Phe	Cys	Arg	Ser	Arg	Lys	Ile	Asn	Ser	Phe	Phe	Cys	Asp	Ile	Pro	Pro						
		195					200					205									
Leu	Leu	Ala	Ile	Ser	Cys	Ser	Asp	Thr	Ser	Leu	Asn	Glu	Leu	Leu	Leu						
	210					215					220										
Phe	Ala	Ile	Cys	Gly	Phe	Ile	Gln	Thr	Ala	Thr	Val	Leu	Ala	Ile	Thr						
225					230					235					240						
Val	Ser	Tyr	Gly	Phe	Ile	Ala	Gly	Ala	Val	Ile	His	Met	Arg	Ser	Val						
				245					250					255							
Glu	Gly	Ser	Arg	Arg	Ala	Ala	Ser	Thr	Gly	Gly	Ser	His	Leu	Thr	Ala						
			260					265					270								
Val	Ala	Met	Met	Tyr	Gly	Thr	Leu	Ile	Phe	Met	Tyr	Leu	Arg	Pro	Ser						
		275					280					285									
Ser	Ser	Tyr	Ala	Leu	Asp	Thr	Asp	Lys	Met	Ala	Ser	Val	Phe	Tyr	Thr						
		290				295					300										
Leu	Val	Ile	Pro	Ser	Leu	Asn	Pro	Leu	Ile	Tyr	Ser	Leu	Arg	Asn	Lys						
305					310					315					320						
Glu	Val	Lys	Glu	Ala	Leu	Arg	Gln	Thr	Trp	Ser	Arg	Phe	His	Cys	Pro						
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<210> 28
 <211> 1026
 <212> DNA
 <213> Homo sapiens

<400> 28

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<210> 29

<211> 309

<212> PRT

<213> Homo sapiens

<400> 29

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Val Thr Gly Gln Gln Glu Gln Glu Asp Phe Phe Tyr Ile Leu Phe Leu
      20             25            30

Phe Ile Tyr Pro Ile Thr Leu Ile Gly Asn Leu Leu Ile Val Leu Ala
      35             40            45

Ile Cys Ser Asp Val Arg Leu His Asn Pro Met Tyr Phe Leu Leu Ala
      50             55            60

Asn Leu Ser Leu Val Asp Ile Phe Phe Ser Ser Val Thr Ile Pro Lys
      65             70            75            80

Met Leu Ala Asn His Leu Leu Gly Ser Lys Ser Ile Ser Phe Gly Gly
      85             90            95

Cys Leu Thr Gln Met Tyr Phe Met Ile Ala Leu Gly Asn Thr Asp Ser
      100            105            110

Tyr Ile Leu Ala Ala Met Ala Tyr Asp Arg Ala Val Ala Ile Ser His
      115            120            125

Pro Leu His Tyr Thr Thr Ile Met Ser Pro Arg Ser Cys Ile Trp Leu
      130            135            140

Ile Ala Gly Ser Trp Val Ile Gly Asn Ala Asn Ala Leu Pro His Thr
      145            150            155            160

Leu Leu Thr Ala Ser Leu Ser Phe Cys Gly Asn Gln Glu Val Ala Asn

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	165		170		175
Phe Tyr Cys Asp Ile Thr Pro Leu Leu Lys Leu Ser Cys Ser Asp Ile	180		185		190
His Phe His Val Lys Met Met Tyr Leu Gly Val Gly Ile Phe Ser Val	195		200		205
Pro Leu Leu Cys Ile Ile Val Ser Tyr Ile Arg Val Phe Ser Thr Val	210		215		220
Phe Gln Val Pro Ser Thr Lys Gly Val Leu Lys Ala Phe Ser Thr Cys	225		230		235
Gly Ser His Leu Thr Val Val Ser Leu Tyr Tyr Gly Thr Val Met Gly	245		250		255
Thr Tyr Phe Arg Pro Leu Thr Asn Tyr Ser Leu Lys Asp Ala Val Ile	260		265		270
Thr Val Met Tyr Thr Ala Val Thr Pro Met Leu Asn Pro Phe Ile Tyr	275		280		285
Ser Leu Arg Asn Arg Asp Met Lys Ala Ala Leu Arg Lys Leu Phe Asn	290		295		300

Lys Arg Ile Ser Ser
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<210> 30
<211> 930
<212> DNA
<213> Homo sapiens

<400> 30
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ggaaacctgc tcattgtcct agccatttgc tctgatgttc gccttcacaa ccccatgtat 180
tttctccttg ccaacctctc cttggttgac atcttcttct catcggtaac catccctaag 240
atgctggcca accatctctt gggcagcaaa tccatctctt ttgggggatg cctaacgcag 300
atgtatttca tgatagcctt gggtaacaca gacagctata ttttggtgc aatggcatat 360
gatcgagctg tggccatcag ccaccactt cactacacaa caattatgag tccacgggtct 420
tgtatctggc ttattgctgg gtcttgggtg attggaaatg ccaatgccct ccccccact 480
ctgctcacag ctagtctgtc cttctgtggc aaccaggaag tggccaactt ctactgtgac 540
attacccctt tgctgaagtt atcctgttct gacatccact ttcattgtga gatgatgtac 600
ctaggggttg gcattttctc tgtgccatta ctatgcacaa ttgtctccta tattcgagtc 660
ttctccacag tcttccaggc tccttccacc aagggcgtgc tcaaggcctt ctccacctgt 720
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cctttgacca attatagcct aaaagacgca gtgatcactg taatgtacac ggcagtgacc 840
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<210> 31
<211> 311
<212> PRT

<213> Homo sapiens

<400> 31

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Thr	Ser	Arg	Arg	Glu	Leu	Gln	Ile	Leu	Leu	Phe	Thr	Leu	Phe	Leu	Ala	
			20					25					30			
Ile	Tyr	Met	Val	Thr	Val	Ala	Gly	Asn	Leu	Gly	Met	Ile	Val	Leu	Ile	
		35					40					45				
Gln	Ala	Asn	Ala	Trp	Leu	His	Met	Pro	Met	Tyr	Phe	Phe	Leu	Ser	His	
	50					55					60					
Leu	Ser	Phe	Val	Asp	Leu	Cys	Phe	Ser	Ser	Asn	Val	Thr	Pro	Lys	Met	
65					70					75					80	
Leu	Glu	Ile	Phe	Leu	Ser	Glu	Lys	Lys	Ser	Ile	Ser	Tyr	Pro	Ala	Cys	
				85					90					95		
Leu	Val	Gln	Cys	Tyr	Leu	Phe	Ile	Ala	Leu	Val	His	Val	Glu	Ile	Tyr	
		100						105					110			
Ile	Leu	Ala	Val	Met	Ala	Phe	Asp	Arg	Tyr	Met	Ala	Ile	Cys	Asn	Pro	
	115						120					125				
Leu	Leu	Tyr	Gly	Ser	Arg	Met	Ser	Lys	Ser	Val	Cys	Ser	Phe	Leu	Ile	
	130					135					140					
Thr	Val	Pro	Tyr	Val	Tyr	Gly	Ala	Leu	Thr	Gly	Leu	Met	Glu	Thr	Met	
145					150					155					160	
Trp	Thr	Tyr	Asn	Leu	Ala	Phe	Cys	Gly	Pro	Asn	Glu	Ile	Asn	His	Phe	
			165						170					175		
Tyr	Cys	Ala	Asp	Pro	Pro	Leu	Ile	Lys	Leu	Ala	Cys	Ser	Asp	Thr	Tyr	
			180					185					190			
Asn	Lys	Glu	Leu	Ser	Met	Phe	Ile	Val	Ala	Gly	Trp	Asn	Leu	Ser	Phe	
		195					200					205				
Ser	Leu	Phe	Ile	Ile	Cys	Ile	Ser	Tyr	Leu	Tyr	Ile	Phe	Pro	Ala	Ile	
	210					215					220					
Leu	Lys	Ile	Arg	Ser	Thr	Glu	Gly	Arg	Gln	Lys	Ala	Phe	Ser	Thr	Cys	
225					230					235					240	
Gly	Ser	His	Leu	Thr	Ala	Val	Thr	Ile	Phe	Tyr	Ala	Thr	Leu	Phe	Phe	
			245						250					255		
Met	Tyr	Leu	Arg	Pro	Pro	Ser	Lys	Glu	Ser	Val	Glu	Gln	Gly	Lys	Met	
		260						265					270			
Val	Ala	Val	Phe	Tyr	Thr	Thr	Val	Ile	Pro	Met	Leu	Asn	Leu	Ile	Ile	
		275					280					285				

Tyr Ser Leu Arg Asn Lys Asn Val Lys Glu Ala Leu Ile Lys Glu Leu
 290 295 300

Ser Met Lys Ile Tyr Phe Ser
 305 310

<210> 32
 <211> 936
 <212> DNA
 <213> Homo sapiens

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 aaccttggca tgattgtcct catccaggcc aacgcctggc tccacatgcc catgtacttt 180
 ttcctgagcc acttatcctt cgtggatctg tgcttctctt ccaatgtgac tccaaagatg 240
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 taccttttta tcgccttggc ccatgttgag atctacatcc tggctgtgat ggcctttgac 360
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 tccttcctca tcacgggtgcc ttatgtgtat ggagcgtca ctggcctgat ggagaccatg 480
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 gtggctggct ggaacctttc tttttctctc ttcacatcat gtatttctta cctttacatt 660
 ttccctgcta ttttaaagat tcgctctaca gagggcaggc aaaaagcttt ttctacctgt 720
 ggctcccatc tgacagctgt cactatatcc tatgcaacc ttttcttcat gtatctcaga 780
 cccccctcaa aggaatctgt tgaacagggt aaaatggtag ctgtatttta taccacagta 840
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 atcaaagagc tgtcaatgaa gatatacttt tcttaa 936

<210> 33
 <211> 307
 <212> PRT
 <213> Homo sapiens

<400> 33
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 Tyr Ile Ile Thr Met Val Gly Asn Ile Gly Met Met Val Leu Ile Lys
 35 40 45
 Val Ser Pro Gln Leu Asn Asn Pro Met Tyr Phe Phe Leu Ser His Leu
 50 55 60
 Ser Phe Val Asp Val Trp Phe Ser Ser Asn Val Thr Pro Lys Met Leu
 65 70 75 80
 Glu Asn Leu Phe Ser Asp Lys Lys Thr Ile Thr Tyr Ala Gly Cys Leu
 85 90 95
 Val Gln Cys Phe Phe Phe Ile Ala Leu Val His Val Glu Ile Phe Ile
 100 105 110

Leu Ala Ala Met Ala Phe Asp Arg Tyr Met Ala Ile Gly Asn Pro Leu
 115 120 125
 Leu Tyr Gly Ser Lys Met Ser Arg Val Val Cys Ile Arg Leu Ile Thr
 130 135 140
 Phe Pro Tyr Ile Tyr Gly Phe Leu Thr Ser Leu Ala Ala Thr Leu Trp
 145 150 155 160
 Thr Tyr Gly Leu Tyr Phe Cys Gly Lys Ile Glu Ile Asn His Phe Tyr
 165 170 175
 Cys Ala Asp Pro Pro Leu Ile Lys Met Ala Cys Ala Gly Thr Phe Val
 180 185 190
 Lys Glu Tyr Thr Met Ile Ile Leu Ala Gly Ile Asn Phe Thr Tyr Ser
 195 200 205
 Leu Thr Val Ile Ile Ile Ser Tyr Leu Phe Ile Leu Ile Ala Ile Leu
 210 215 220
 Arg Met Arg Ser Ala Glu Gly Arg Gln Lys Ala Phe Ser Thr Cys Gly
 225 230 235 240
 Ser His Leu Thr Ala Val Ile Ile Phe Tyr Gly Thr Leu Ile Phe Met
 245 250 255
 Tyr Leu Arg Arg Pro Thr Glu Glu Ser Val Glu Gln Gly Lys Met Val
 260 265 270
 Ala Val Phe Tyr Thr Thr Val Ile Pro Met Leu Asn Pro Met Ile Tyr
 275 280 285
 Ser Leu Arg Asn Lys Asp Val Lys Lys Ala Met Met Lys Val Ile Ser
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 Arg Ser Cys
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<210> 34
 <211> 924
 <212> DNA
 <213> Homo sapiens

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 ttcttcattg ctcttggtcca tgtggaaatt tttattcttg ctgcgatggc ctttgataga 360
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 cctctcatca aaatggcctg tgccggggacc tttgtaaaag aatatacaat gatcatactt 600


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cccacagagg agtctgtgga gcaggggaag atgggtggctg tgttctatac cacagtgatc 840
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<210> 35

<211> 305

<212> PRT

<213> Homo sapiens

<400> 35

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      20              25              30

Val Val Tyr Leu Val Thr Leu Leu Gly Asn Leu Gly Met Ile Met Leu
      35              40              45

Met Arg Leu Asp Ser Arg Leu His Thr Pro Met Tyr Phe Phe Leu Thr
      50              55              60

Asn Leu Ala Phe Val Asp Leu Cys Tyr Thr Ser Asn Ala Thr Pro Gln
      65              70              75              80

Met Ser Thr Asn Ile Val Ser Glu Lys Thr Ile Ser Phe Ala Gly Cys
      85              90              95

Phe Thr Gln Cys Tyr Ile Phe Ile Ala Leu Leu Leu Thr Glu Phe Tyr
      100             105             110

Met Leu Ala Ala Met Ala Tyr Asp Arg Tyr Val Ala Ile Tyr Asp Pro
      115             120             125

Leu Arg Tyr Ser Val Lys Thr Ser Arg Arg Val Cys Ile Cys Leu Ala
      130             135             140

Thr Phe Pro Tyr Val Tyr Gly Phe Ser Asp Gly Leu Phe Gln Ala Ile
      145             150             155             160

Leu Thr Phe Arg Leu Thr Phe Cys Arg Ser Asn Val Ile Asn His Phe
      165             170             175

Tyr Cys Ala Asp Pro Pro Leu Ile Lys Leu Ser Cys Ser Asp Thr Tyr
      180             185             190

Val Lys Glu His Ala Met Phe Ile Ser Ala Gly Phe Asn Leu Ser Ser
      195             200             205

Ser Leu Thr Ile Val Leu Val Ser Tyr Ala Phe Ile Leu Ala Ala Ile
      210             215             220

Leu Arg Ile Lys Ser Ala Glu Gly Arg His Lys Ala Phe Ser Thr Cys

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225				230				235				240			
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Met	Tyr	Ile	Arg	Pro	Pro	Thr	Asp	Lys	Thr	Val	Glu	Glu	Ser	Lys	Ile
				260					265					270	
Ile	Ala	Val	Phe	Tyr	Thr	Phe	Val	Ser	Pro	Val	Leu	Asn	Pro	Leu	Ile
				275					280					285	
Tyr	Ser	Leu	Arg	Asn	Lys	Asp	Val	Lys	Gln	Ala	Leu	Lys	Asn	Val	Leu
				290					295					300	

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<210> 36
<211> 918
<212> DNA
<213> Homo sapiens
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<210> 37
<211> 311
<212> PRT
<213> Homo sapiens
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Ala Ile Tyr Ser Asp Pro Arg Leu His Thr Pro Met Tyr Phe Phe Leu
 50 55 60
 Ser Asn Leu Ser Phe Met Asp Ile Cys Phe Thr Thr Val Ile Val Pro
 65 70 75 80
 Lys Met Leu Val Asn Phe Leu Ser Glu Thr Lys Ile Ile Ser Tyr Val
 85 90 95
 Gly Cys Leu Ile Gln Met Tyr Phe Phe Met Ala Phe Gly Asn Thr Asp
 100 105 110
 Ser Tyr Leu Leu Ala Ser Met Ala Ile Asp Arg Leu Val Ala Ile Cys
 115 120 125
 Asn Pro Leu His Tyr Asp Val Val Met Lys Pro Trp His Cys Leu Leu
 130 135 140
 Met Leu Leu Gly Ser Cys Ser Ile Ser His Leu His Ser Leu Phe Arg
 145 150 155 160
 Val Leu Leu Met Ser Arg Leu Ser Phe Cys Ala Ser His Ile Ile Lys
 165 170 175
 His Phe Phe Cys Asp Thr Gln Pro Val Leu Lys Leu Ser Cys Ser Asp
 180 185 190
 Thr Ser Ser Ser Gln Met Val Val Met Thr Glu Thr Leu Ala Val Ile
 195 200 205
 Val Thr Pro Phe Leu Cys Thr Ile Phe Ser Tyr Leu Gln Ile Ile Val
 210 215 220
 Thr Val Leu Arg Ile Pro Ser Ala Ala Gly Lys Trp Lys Ala Phe Ser
 225 230 235 240
 Thr Cys Gly Ser His Leu Thr Val Val Val Leu Phe Tyr Gly Ser Val
 245 250 255
 Ile Tyr Val Tyr Phe Arg Pro Leu Ser Met Tyr Ser Val Met Lys Gly
 260 265 270
 Arg Val Ala Thr Val Met Tyr Thr Val Val Thr Pro Met Leu Asn Pro
 275 280 285
 Phe Ile Tyr Ser Leu Arg Asn Lys Asp Met Lys Arg Gly Leu Lys Lys
 290 295 300
 Leu Arg His Arg Ile Tyr Ser
 305 310

<210> 38
 <211> 936
 <212> DNA
 <213> Homo sapiens

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<400> 38
atggagacaa agaattatag cagcagcacc tcaggcttca tcctcctggg cctctcttcc 60
aaccctaagc tgcagaaacc tctctttgcc atcttcctca tcatgtacct actcactgcg 120
gtggggaatg tgcctcatcat cctggccatc tactctgacc ccaggctcca cacccttatg 180
tacttttttc tcagcaactt gtctttcatg gatattctgct tcacaacagt catagtgcct 240
aagatgctgg tgaattttct atcagagaca aagattatct cttatgtggg ctgcctgac 300
cagatgtact tcttcatggc atttggaac actgacagct acctgctggc ctctatggcc 360
atcgaccggc tgggtggccat ctgcaacccc ttacactatg atgtggttat gaaaccatgg 420
cattgcctac tcatgctatt ggggttcttg agcatctccc acctacattc cctgttccgc 480
gtgctactta tgtctcgctt gtctttctgt gcctctcaca tcattaagca ctttttctgt 540
gacaccgagc ctgtgctaaa gctctcctgc tctgacacat cctccagcca gatggtggtg 600
atgactgaga ccttagctgt cattgtgacc cccttcctgt gtaccatctt ctctacctg 660
caaatcatcg tcaactgtgt cagaatcccc tctgcagccg ggaagtggaa ggcttctct 720
acctgtggct cccacctcac tgtagtggc ctgttctatg ggagtgtcat ctatgtctat 780
tttaggcctc tgtccatgta ctcaagtatg aagggccggg tagccacagt tatgtacaca 840
gtagtgacac ccatgctgaa cccttctatc tacagcctga ggaacaaaga tatgaaaagg 900
ggtttgaaga aattaagaca cagaatttac tcatag 936

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<210> 39
<211> 316
<212> PRT
<213> Homo sapiens

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<400> 39
Met Val Glu Glu Asn His Thr Met Lys Asn Glu Phe Ile Leu Thr Gly
  1             5             10             15

Phe Thr Asp His Pro Glu Leu Lys Thr Leu Leu Phe Val Val Phe Phe
      20             25             30

Ala Ile Tyr Leu Ile Thr Val Val Gly Asn Ile Ser Leu Val Ala Leu
      35             40             45

Ile Phe Thr His Cys Arg Leu His Thr Pro Met Tyr Ile Phe Leu Gly
      50             55             60

Asn Leu Ala Leu Val Asp Ser Cys Cys Ala Cys Ala Ile Thr Pro Lys
      65             70             75             80

Met Leu Glu Asn Phe Phe Ser Glu Gly Lys Arg Ile Ser Leu Tyr Glu
      85             90             95

Cys Ala Val Gln Phe Tyr Phe Leu Cys Thr Val Glu Thr Ala Asp Cys
      100             105             110

Phe Leu Leu Ala Ala Val Ala Tyr Asp Arg Tyr Val Ala Ile Cys Asn
      115             120             125

Pro Leu Gln Tyr His Ile Met Met Ser Lys Lys Leu Cys Ile Gln Met
      130             135             140

Thr Thr Gly Ala Phe Ile Ala Gly Asn Leu His Ser Met Ile His Val
      145             150             155             160

Gly Leu Val Phe Arg Leu Val Phe Cys Gly Leu Asn His Ile Asn His
      165             170             175

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Phe Tyr Cys Asp Thr Leu Pro Leu Tyr Arg Leu Ser Cys Val Asp Pro
 180 185 190
 Phe Ile Asn Glu Leu Val Leu Phe Ile Phe Ser Gly Ser Val Gln Val
 195 200 205
 Phe Thr Ile Gly Ser Val Leu Ile Ser Tyr Leu Tyr Ile Leu Leu Thr
 210 215 220
 Ile Phe Arg Met Lys Ser Lys Glu Gly Arg Ala Lys Ala Phe Ser Thr
 225 230 235 240
 Cys Ala Ser His Phe Ser Ser Val Ser Leu Phe Tyr Gly Ser Ile Phe
 245 250 255
 Phe Leu Tyr Ile Arg Pro Asn Leu Leu Glu Glu Gly Gly Asn Asp Ile
 260 265 270
 Pro Ala Ala Ile Leu Phe Thr Ile Val Val Pro Leu Leu Asn Pro Phe
 275 280 285
 Ile Tyr Ser Leu Arg Asn Lys Glu Val Ile Ser Val Leu Arg Lys Ile
 290 295 300
 Leu Leu Lys Ile Lys Ser Gln Gly Ser Val Asn Lys
 305 310 315

<210> 40
 <211> 951
 <212> DNA
 <213> Homo sapiens

<400> 40
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 gggaatatta gtttgggtggc actgatattt acacactgtc ggcttcacac accaatgtac 180
 atctttcttg gaaatctggc tcttgtggat tcttgctgtg cctgtgctat taccoccaa 240
 atgttagaga acttcttttc tgagggcaaa aggatttccc tctatgaatg tgcagtacag 300
 ttttattttc tttgactgtg ggaaactgca gactgctttc ttctggcagc agtggcctat 360
 gaccgctatg tggccatctg caaccactg cagtaccaca tcatgatgtc caagaaactc 420
 tgcattcaga tgaccacagg cgccttcata gctggaaatc tgcattccat gattcatgta 480
 gggcttgtat ttaggttagt tttctgtgga ttgaatcaca tcaaccactt ttactgtgat 540
 actcttccct tgtatagact ctctgtgtt gaccctttca tcaatgaact ggttctattc 600
 atctttctcag gttcagttca agtctttacc ataggtagtg tcttaatatc ttatctctat 660
 attctttcta ctattttcag aatgaaatcc aaggagggaa gggccaaagc cttttctact 720
 tgtgcatccc acttttcac agtttcatta ttctatggat ctattttttt cctatacatt 780
 agaccaaatt tgcttgaaga aggaggtaat gatataccag ctgctatttt atttacaata 840
 gtagttccct tactaaatcc tttcatttat agtctgagaa acaaggaagt aataagtgtc 900
 ttaagaaaaa ttctgctgaa aataaaatct caaggaagtg tgaacaaatg a 951

<210> 41
 <211> 299
 <212> PRT
 <213> Homo sapiens

<400> 41

Met	Glu	Pro	Arg	Lys	Asn	Val	Thr	Asp	Phe	Val	Leu	Leu	Gly	Phe	Thr	1	5	10	15
Gln	Asn	Pro	Lys	Glu	Gln	Lys	Val	Leu	Phe	Val	Met	Phe	Leu	Leu	Phe	20	25	30	
Tyr	Ile	Leu	Thr	Met	Val	Gly	Asn	Leu	Leu	Ile	Val	Val	Thr	Val	Thr	35	40	45	
Val	Ser	Glu	Thr	Leu	Gly	Ser	Pro	Met	Ser	Phe	Phe	Leu	Ala	Gly	Leu	50	55	60	
Thr	Phe	Ile	Asp	Ile	Ile	Tyr	Ser	Ser	Ser	Ile	Ser	Pro	Arg	Leu	Ile	65	70	75	80
Ser	Asp	Leu	Phe	Phe	Gly	Asn	Asn	Ser	Ile	Ser	Phe	Gln	Ser	Phe	Met	85	90	95	
Ala	Gln	Leu	Phe	Ile	Glu	His	Leu	Phe	Gly	Gly	Ser	Glu	Val	Phe	Leu	100	105	110	
Leu	Leu	Val	Met	Ala	Tyr	Asp	Arg	Tyr	Val	Ala	Ile	Cys	Lys	Pro	Leu	115	120	125	
His	Tyr	Leu	Val	Ile	Met	Arg	Gln	Trp	Val	Cys	Val	Leu	Leu	Leu	Val	130	135	140	
Val	Ser	Trp	Val	Gly	Gly	Phe	Leu	Gln	Ser	Val	Phe	Gln	Leu	Ser	Ile	145	150	155	160
Ile	Tyr	Gly	Leu	Pro	Phe	Cys	Gly	Pro	Asn	Val	Ile	Asp	His	Phe	Phe	165	170	175	
Cys	Asp	Met	Tyr	Pro	Leu	Leu	Lys	Leu	Ala	Cys	Thr	Asp	Thr	His	Val	180	185	190	
Ile	Gly	Leu	Leu	Val	Val	Ala	Asn	Gly	Gly	Leu	Ser	Cys	Thr	Ile	Ala	195	200	205	
Phe	Leu	Leu	Leu	Leu	Ile	Ser	Tyr	Gly	Val	Ile	Leu	His	Ser	Leu	Lys	210	215	220	
Lys	Leu	Ser	Gln	Lys	Gly	Arg	Gln	Lys	Ala	His	Ser	Thr	Cys	Ser	Ser	225	230	235	240
His	Ile	Thr	Val	Val	Val	Phe	Phe	Phe	Val	Pro	Cys	Ile	Phe	Met	Cys	245	250	255	
Ala	Arg	Pro	Ala	Arg	Thr	Phe	Ser	Ile	Asp	Lys	Ser	Val	Ser	Val	Phe	260	265	270	
Tyr	Thr	Val	Ile	Thr	Pro	Met	Leu	Asn	Pro	Leu	Ile	Tyr	Thr	Leu	Arg	275	280	285	
Asn	Ser	Glu	Met	Thr	Ser	Ala	Met	Lys	Lys	Leu									

290

295

<210> 42
 <211> 900
 <212> DNA
 <213> Homo sapiens

<400> 42
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 ctgctcattg tagtgaccgt aactgtcagt gagaccctgg gctcaccaat gtccttcttt 180
 cttgctgggt taacatttat agatatcatt tattcttcat ccatttcccc cagattgatt 240
 tcagacttgt tctttgggaa taattccata tccttccaat ctttcatggc ccagctcttt 300
 atcgagcacc tttttggtgg gtcagagggtc tttctcctgt tggatgatggc ctatgaccgc 360
 tatgtggcca tctgtaagcc cttgcattat ttggttatca tgagacaatg ggtgtgtgtt 420
 ttgctgctgg tagtgctcctg ggttggagga tttctgcaat cagtatttca acttagcatt 480
 atttatgggc tcccattctg tggccccaat gtcattgatc attttttctg tgacatgtat 540
 cccttattga aactggcctg cactgacacc catgttattg gcctcttagt ggtggccaat 600
 ggaggactgt cttgcactat tgcgtttctg ctcttactca tctcttatgg tgtcatcctg 660
 cactctctaa agaaacttag tcagaaaggg aggcacaaag cccactcaac ctgcagttcc 720
 cacatcactg tggttgtctt cttctttgtt ccttgatttt ttatgtgtgc tagacctgct 780
 aggaccttct ccattgacaa atcagtgagt gtgttttata cagtcataac cccaatgctg 840
 aaccctctaa tctacactct gagaaattct gagatgacaa gtgctatgaa gaagcttttag 900

<210> 43
 <211> 315
 <212> PRT
 <213> Homo sapiens

<220>
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 <222> (3)..(4)
 <223> Variable amino acid

<220>
 <221> MOD_RES
 <222> (6)
 <223> Variable amino acid

<220>
 <221> MOD_RES
 <222> (22)
 <223> Variable amino acid

<220>
 <221> MOD_RES
 <222> (34)..(35)
 <223> Variable amino acid

<220>
 <221> MOD_RES
 <222> (52)
 <223> Variable amino acid

<220>

<221> MOD_RES
 <222> (145)..(146)
 <223> Variable amino acid

<220>
 <221> MOD_RES
 <222> (169)
 <223> Variable amino acid

<400> 43
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 Gln Asp Pro Gly Val Xaa Lys Ala Leu Phe Val Met Phe Leu Leu Thr
 20 25 30
 Tyr Xaa Xaa Thr Val Val Gly Asn Leu Leu Ile Val Val Asp Ile Ile
 35 40 45
 Ala Ser Pro Xaa Leu Gly Ser Pro Met Tyr Phe Phe Leu Ala Cys Leu
 50 55 60
 Ser Phe Ile Asp Ala Ala Tyr Ser Thr Thr Ile Ser Pro Lys Leu Ile
 65 70 75 80
 Val Gly Leu Phe Cys Asp Lys Lys Thr Ile Ser Phe Gln Gly Cys Met
 85 90 95
 Gly Gln Leu Phe Ile Asp His Phe Phe Gly Gly Ala Glu Val Phe Leu
 100 105 110
 Leu Val Val Met Ala Cys Asp Arg Tyr Val Ala Ile Cys Lys Pro Leu
 115 120 125
 His Tyr Leu Thr Ile Met Asn Arg Gln Val Cys Phe Leu Leu Leu Val
 130 135 140
 Xaa Xaa Met Ile Gly Gly Phe Val His Ser Ala Phe Gln Ile Val Val
 145 150 155 160
 Tyr Ser Leu Pro Phe Cys Gly Pro Xaa Val Ile Val His Phe Ser Cys
 165 170 175
 Asp Met His Pro Leu Leu Glu Leu Ala Cys Thr Asp Thr Tyr Phe Ile
 180 185 190
 Gly Leu Thr Val Val Val Asn Ser Gly Ala Ile Cys Met Val Ile Phe
 195 200 205
 Asn Leu Leu Leu Ile Ser Tyr Gly Val Ile Leu Ser Ser Leu Lys Thr
 210 215 220
 Tyr Ser Gln Glu Lys Arg Gly Lys Ala Leu Ser Thr Cys Ser Ser Gly
 225 230 235 240
 Ser Thr Val Val Val Leu Phe Phe Val Pro Cys Ile Phe Ile Tyr Val
 245 250 255

Arg Pro Val Ser Asn Phe Pro Thr Asp Lys Phe Met Thr Val Phe Tyr
 260 265 270
 Thr Ile Ile Thr His Met Leu Ser Pro Leu Ile Tyr Thr Leu Arg Asn
 275 280 285
 Ser Glu Met Arg Asn Ala Ile Glu Lys Leu Leu Gly Lys Lys Leu Thr
 290 295 300
 Ile Phe Ile Ile Gly Gly Val Ser Val Leu Met
 305 310 315

<210> 44
 <211> 948
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (9)..(12)
 <223> A, T, C or G

<220>
 <221> modified_base
 <222> (21)
 <223> A, T, C or G

<220>
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 <222> (64)..(66)
 <223> A, T, C or G

<220>
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 <222> (100)..(105)
 <223> A, T, C or G

<220>
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 <222> (132)
 <223> A, T, C or G

<220>
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 <222> (155)..(156)
 <223> A, T, C or G

<220>
 <221> modified_base
 <222> (432)..(433)
 <223> A, T, C or G

<220>
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 <222> (505)

<223> A, T, C or G

<400> 44

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ctgctcattg tngtggatat tattgccagc ccttnnttgg gttccccaat gtatttcttc 180
cttgccctgcc tgatcatttat agatgctgca tattccacta ccatttctcc caagttaatt 240
gtaggcttat tctgtgataa aaagactatt tccttccaag gttgcatggg ccagctattt 300
atagaccatt tctttgggtg ggctgaggtc ttcttcttgg tggatgatggc ctgtgatcgc 360
tatgtggcca tctgtaagcc actgcactat ttgaccatca tgaatcgaca ggtttgcttc 420
cttctgttgg tnnnnccat gattggaggt tttgtacatt ctgcgtttca aattgttgtg 480
tacagtctcc ctttctgtgg tcccnatgtc attgttcatt tcagttgtga catgcaccca 540
ttactggaac tggcatgcac tgacacctac tttataggcc tcaactgttg tgtcaatagt 600
ggagcaatct gtatgggtcat tttcaacctt ctgttaatct cctatggagt catcctaagc 660
tcccttaaaa cttacagtca ggaaaagagg ggtaaagcct tgtctacctg cagctccggc 720
agtaccgttg ttgtcctctt tttgtaccc tgtattttca tatatgtag acctgtttca 780
aactttccta ctgataagtt catgactgtg ttttatacca ttatcacaca catgctgagt 840
cctttaatat atacgttgag aaattcagag atgagaaatg ctatagaaaa actcttgggt 900
aaaaagttaa ctatatttat tataggagga gtgtccgtcc tcatgtag 948

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<210> 45

<211> 314

<212> PRT

<213> Homo sapiens

<400> 45

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Met Ala Lys Asn Asn Leu Thr Arg Val Thr Glu Phe Ile Leu Met Gly
  1              5              10              15

Phe Met Asp His Pro Lys Leu Glu Ile Pro Leu Phe Leu Val Phe Leu
      20              25              30

Ser Phe Tyr Leu Val Thr Leu Leu Gly Asn Val Gly Met Ile Met Leu
      35              40              45

Ile Gln Val Asp Val Lys Leu Tyr Thr Pro Met Tyr Phe Phe Leu Ser
      50              55              60

His Leu Ser Leu Leu Asp Ala Cys Tyr Thr Ser Val Ile Thr Pro Gln
      65              70              75              80

Ile Leu Ala Thr Leu Ala Thr Gly Lys Thr Val Ile Ser Tyr Gly His
      85              90              95

Cys Ala Ala Gln Phe Phe Leu Phe Thr Ile Cys Ala Gly Thr Glu Cys
      100              105              110

Phe Leu Leu Ala Val Met Ala Tyr Asp Arg Tyr Ala Ala Ile Arg Asn
      115              120              125

Pro Leu Leu Tyr Thr Val Ala Met Asn Pro Arg Leu Cys Trp Ser Leu
      130              135              140

Val Val Gly Ala Tyr Val Cys Gly Val Ser Gly Ala Ile Leu Arg Thr
      145              150              155              160

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Thr Cys Thr Phe Thr Leu Ser Phe Cys Lys Asp Asn Gln Ile Asn Phe
 165 170 175
 Phe Phe Cys Asp Leu Pro Pro Leu Leu Lys Leu Ala Cys Ser Asp Thr
 180 185 190
 Ala Asn Ile Glu Ile Val Ile Ile Phe Phe Gly Asn Phe Val Ile Leu
 195 200 205
 Ala Asn Ala Ser Val Ile Leu Ile Ser Tyr Leu Leu Ile Ile Lys Thr
 210 215 220
 Ile Leu Lys Val Lys Ser Ser Gly Gly Arg Ala Lys Thr Phe Ser Thr
 225 230 235 240
 Cys Ala Ser His Ile Thr Ala Val Ala Leu Phe Phe Gly Ala Leu Ile
 245 250 255
 Phe Met Tyr Leu Gln Ser Gly Ser Gly Lys Ser Leu Glu Glu Asp Lys
 260 265 270
 Val Val Ser Val Phe Tyr Thr Val Val Ile Pro Met Leu Asn Pro Leu
 275 280 285
 Ile Tyr Ser Leu Arg Asn Lys Asp Val Lys Asp Ala Phe Arg Lys Val
 290 295 300
 Ala Arg Arg Leu Gln Val Ser Leu Ser Met
 305 310

<210> 46
 <211> 945
 <212> DNA
 <213> Homo sapiens

<400> 46
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 gggaaatgtgg ggatgattat gttaatccaa gtagatgtca aactctacac cccaatgtac 180
 ttcttcctga gccacctctc cctgctggat gcctgttaca cctcagtcac caccctcag 240
 atcctagcca cattggccac aggcaaaacg gtcattctct acggccactg tgctgcccag 300
 ttctttttat tcaccatctg tgcaggcaca gagtgctttc tgctggcagt gatggcctat 360
 gatcgctatg ctgccattcg caaccactg ctctataccg tggccatgaa tcccaggctc 420
 tgctggagcc tgggtgtagg agcctatgtc tgtggggtgt caggagccat cctgcgtacc 480
 acttgcacct tcaccctctc cttctgtaag gacaatcaaa taaacttctt cttctgtgac 540
 ctcccacccc tgctgaagct tgcctgcagt gacacagcaa acatcgagat tgtcatcatc 600
 ttcttttgga attttgtgat tttggccaat gcctccgtca tcctgatttc ctatctgctc 660
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 tgtgcctctc acatcactgc tgtggccctt ttctttggag cccttatctt catgtatctg 780
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 gtcattccca tgctgaacct tctgatctac agcttaagaa acaaagatgt aaaagacgcc 900
 ttcagaaagg tcgctaggag actccagggtg tccctgagca tgtag 945

<210> 47
 <211> 307

<212> PRT

<213> Homo sapiens

<400> 47

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1				5					10					15		
Leu	Ser	Gln	Thr	Arg	Glu	Leu	Gln	Arg	Phe	Leu	Phe	Leu	Met	Phe	Leu	
			20					25					30			
Phe	Val	Tyr	Ile	Thr	Thr	Val	Met	Gly	Asn	Ile	Leu	Ile	Ile	Ile	Thr	
		35					40					45				
Val	Thr	Ser	Asp	Ser	Gln	Leu	His	Thr	Pro	Met	Tyr	Phe	Leu	Leu	Arg	
	50					55					60					
Asn	Leu	Ala	Val	Leu	Asp	Leu	Cys	Phe	Ser	Ser	Val	Thr	Ala	Pro	Lys	
65					70					75					80	
Met	Leu	Val	Asp	Leu	Leu	Ser	Glu	Lys	Lys	Thr	Ile	Ser	Tyr	Gln	Gly	
				85					90					95		
Cys	Met	Gly	Gln	Ile	Phe	Phe	Phe	His	Phe	Leu	Gly	Gly	Ala	Met	Val	
			100					105					110			
Phe	Phe	Leu	Ser	Val	Met	Ala	Phe	Asp	Arg	Leu	Ile	Ala	Ile	Ser	Arg	
		115					120					125				
Pro	Leu	Arg	Tyr	Val	Thr	Val	Met	Asn	Thr	Gln	Leu	Trp	Val	Gly	Leu	
	130					135					140					
Val	Val	Ala	Thr	Trp	Val	Gly	Gly	Phe	Val	His	Ser	Ile	Val	Gln	Leu	
145					150					155					160	
Ala	Leu	Met	Leu	Pro	Leu	Pro	Phe	Cys	Gly	Pro	Asn	Ile	Leu	Asp	Asn	
				165					170					175		
Phe	Tyr	Cys	Asp	Val	Pro	Gln	Val	Leu	Arg	Leu	Ala	Cys	Thr	Asp	Thr	
			180					185					190			
Ser	Leu	Leu	Glu	Phe	Leu	Lys	Ile	Ser	Asn	Ser	Gly	Leu	Leu	Asp	Val	
	195						200					205				
Val	Trp	Phe	Phe	Leu	Leu	Leu	Met	Ser	Tyr	Leu	Phe	Ile	Leu	Val	Met	
	210					215					220					
Leu	Arg	Ser	His	Pro	Gly	Glu	Ala	Arg	Arg	Lys	Ala	Ala	Ser	Thr	Cys	
225					230					235					240	
Thr	Thr	His	Ile	Ile	Val	Val	Ser	Met	Ile	Phe	Val	Pro	Ser	Ile	Tyr	
			245						250					255		
Leu	Tyr	Ala	Arg	Pro	Phe	Thr	Pro	Phe	Pro	Met	Asp	Lys	Leu	Val	Ser	
		260						265					270			
Ile	Gly	His	Thr	Val	Met	Thr	Pro	Met	Leu	Asn	Pro	Met	Ile	Tyr	Thr	
	275						280					285				

Leu Arg Asn Gln Asp Met Gln Ala Ala Val Arg Arg Leu Gly Arg His
 290 295 300

Arg Leu Val
 305

<210> 48
 <211> 924
 <212> DNA
 <213> Homo sapiens

<400> 48
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 ggaaacatcc ttatcatcat cacagtgaac tctgattccc agctccacac acccatgtac 180
 tttctgctcc gaaacctggc tgctctagac ctctgtttct cttcagtcac tgctcccaaa 240
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 atcttcttct tccacttttt gggagggtgcc atggtcttct tcctctcagt gatggccttt 360
 gaccgcctca ttgccatctc ccggccccctc cgctatgtca ccgtcatgaa cactcagctc 420
 tgggtggggc tgggtggtagc cacctgggtg ggaggctttg tccactctat tgtccagctg 480
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 gttccccaag tactgagact tgctgcact gacacctcac tgctggagtt cctcaagatc 600
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 atcctggtga tgctgaggtc acatccaggg gaggcaagaa ggaaggcagc ttccacctgc 720
 accacccaca tcatcgtggt ttccatgatc ttcggttccaa gcatttacct ctatgcccg 780
 cccttcactc cattccctat ggacaagctt gtgtccatcg gccacacagt catgaccccc 840
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 ttagggagac accggctggt ttga 924

<210> 49
 <211> 310
 <212> PRT
 <213> Homo sapiens

<400> 49
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 1 5 10 15
 Thr His Gln Pro Gly Leu Arg Ile Pro Leu Phe Phe Leu Phe Leu Gly
 20 25 30
 Phe Tyr Thr Val Thr Val Val Gly Asn Leu Gly Leu Ile Thr Leu Ile
 35 40 45
 Gly Leu Asn Ser His Leu His Thr Pro Met Tyr Phe Phe Leu Phe Asn
 50 55 60
 Leu Ser Leu Ile Asp Phe Cys Phe Ser Thr Thr Ile Thr Pro Lys Met
 65 70 75 80
 Leu Met Ser Phe Val Ser Arg Lys Asn Ile Ile Ser Phe Thr Gly Cys
 85 90 95
 Met Thr Gln Leu Phe Phe Phe Cys Phe Phe Val Val Ser Glu Ser Phe

100	105	110
Ile Leu Ser Ala Met Ala Tyr Asp Arg Tyr Val Ala Ile Cys Asn Pro		
115	120	125
Leu Leu Tyr Thr Val Thr Met Ser Cys Gln Val Cys Leu Leu Leu Leu		
130	135	140
Leu Gly Ala Tyr Gly Met Gly Phe Ala Gly Ala Met Ala His Thr Gly		
145	150	155
Ser Ile Met Asn Leu Thr Phe Cys Ala Asp Asn Leu Val Asn His Phe		
165	170	175
Met Cys Asp Ile Leu Pro Leu Leu Glu Leu Ser Cys Asn Ser Ser Tyr		
180	185	190
Met Asn Glu Leu Val Val Phe Ile Val Val Ala Val Asp Val Gly Met		
195	200	205
Pro Ile Val Thr Val Phe Ile Ser Tyr Ala Leu Ile Leu Ser Ser Ile		
210	215	220
Leu His Asn Ser Ser Thr Glu Gly Arg Ser Lys Ala Phe Ser Thr Cys		
225	230	235
Ser Ser His Ile Ile Val Val Ser Leu Phe Phe Gly Ser Gly Ala Phe		
245	250	255
Met Tyr Leu Lys Pro Leu Ser Ile Leu Pro Leu Glu Gln Gly Lys Val		
260	265	270
Ser Ser Leu Phe Tyr Thr Ile Ile Val Pro Val Leu Asn Pro Leu Ile		
275	280	285
Tyr Ser Leu Arg Asn Lys Asp Val Lys Val Ala Leu Arg Arg Thr Leu		
290	295	300
Gly Arg Lys Ile Phe Ser		
305	310	

<210> 50

<211> 933

<212> DNA

<213> Homo sapiens

<400> 50

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aacctgggct tgataaccct gattgggctg aactctcacc tgcacactcc catgtacttc 180
ttccttttta acctctcttt aatagatttc tgtttctcca ctaccatcac tcccaaatg 240
ctgatgagtt ttgtctcaag gaagaacatc atttccttca cagggtgtat gactcagctc 300
ttcttcttct gcttctttgt cgtctctgag tccttcatcc tgtcagcgat ggcgtatgac 360
cgctacgtgg ccatctgtaa cccactgttg tacacagtca ccatgtcttg ccagggtgtg 420
ttgctccttt tgttggtgac ctatgggatg gggtttgctg gggccatggc ccacacagga 480
agcataatga acctgacctt ctgtgctgac aaccttgtca atcatttcat gtgtgacatc 540

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gtgggtggctg ttgacgttgg aatgcccatt gtcactgtct ttatttctta tgccctcatc 660
ctctccagca ttctacacaa cagttctaca gaaggcaggt ccaaagcctt tagtacttgc 720
agttcccaca taattgtagt ttctcttttc tttgggtctg gtgctttcat gtatctcaaa 780
ccccctttcca tctgcccct cgagcaaggg aaagtgtcct ccctgttcta taccataata 840
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aggagaactt tgggcagaaa aatcttttct taa 933

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<210> 51

<211> 316

<212> PRT

<213> Homo sapiens

<400> 51

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Met Pro Ser Gln Asn Tyr Ser Ile Ile Ser Glu Phe Asn Leu Phe Gly
 1              5              10              15

Phe Ser Ala Phe Pro Gln His Leu Leu Pro Ile Leu Phe Leu Leu Tyr
      20              25              30

Leu Leu Met Phe Leu Phe Thr Leu Leu Gly Asn Leu Leu Ile Met Ala
      35              40              45

Thr Ile Trp Ile Glu His Arg Leu His Thr Pro Met Tyr Leu Phe Leu
      50              55              60

Cys Thr Leu Ser Val Ser Glu Ile Leu Phe Thr Val Ala Ile Thr Pro
      65              70              75              80

Arg Met Leu Ala Asp Leu Leu Ser Thr His His Ser Ile Thr Phe Val
      85              90              95

Ala Cys Ala Asn Gln Met Phe Phe Ser Phe Met Phe Gly Phe Thr His
      100              105              110

Ser Phe Leu Leu Leu Val Met Gly Tyr Asp Arg Tyr Val Ala Ile Cys
      115              120              125

His Pro Leu Arg Tyr Asn Val Leu Met Ser Pro Arg Asp Cys Ala His
      130              135              140

Leu Val Ala Cys Thr Trp Ala Gly Gly Ser Val Met Gly Met Met Val
      145              150              155              160

Thr Thr Ile Val Phe His Leu Thr Phe Cys Gly Ser Asn Val Ile His
      165              170              175

His Phe Phe Cys His Val Leu Ser Leu Leu Lys Leu Ala Cys Glu Asn
      180              185              190

Lys Thr Ser Ser Val Ile Met Gly Val Met Leu Val Cys Val Thr Ala
      195              200              205

Leu Ile Gly Cys Leu Phe Leu Ile Ile Leu Ser Tyr Val Phe Ile Val
      210              215              220

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Ala Ala Ile Leu Arg Ile Pro Ser Ala Glu Gly Arg His Lys Thr Phe
 225 230 235 240

Ser Thr Cys Val Ser His Leu Thr Val Val Val Thr His Tyr Ser Phe
 245 250 255

Ala Ser Phe Ile Tyr Leu Lys Pro Lys Gly Leu His Ser Met Tyr Ser
 260 265 270

Asp Ala Leu Met Ala Thr Thr Tyr Thr Val Phe Thr Pro Phe Leu Ser
 275 280 285

Pro Ile Ile Phe Ser Leu Arg Asn Lys Glu Leu Lys Asn Ala Ile Asn
 290 295 300

Lys Asn Phe Tyr Arg Lys Phe Cys Pro Pro Ser Ser
 305 310 315

<210> 52
 <211> 951
 <212> DNA
 <213> Homo sapiens

<400> 52
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 ctgggcaacc ttctcatcat ggccacaatc tggattgaac acagactcca cacacccatg 180
 tacctcttct tgtgcaccct ctccgtctct gagattctgt tcactgttgc catcaccct 240
 cgcattgctg ctgatctgct ttccacccat cattccatca cctttgtggc ttgtgccaac 300
 cagatgttct tctccttcat gtttggttcc actcactcct tccttctcct ggatcatggg 360
 tatgatcgct atgtggccat ctgccacca ctgcgttaca atgtgctcat gagccccctg 420
 gactgtgccc atcttgtggc ctgtacctgg gctgggtggc cagtcattgg gatgatggg 480
 acaacgatag tttccacct cactttctgt gggctaatg tgatccacca tttttctgt 540
 catgtgcttt ccctcttgaa gttggcctgt gaaaacaaga catcatctgt catcatggg 600
 gtgatgctgg tgtgtgtcac agccctgata ggctgtttat tcctcatcat cctctcctat 660
 gtcttcattg tggctgccat cttgaggatt ccctctgccg aaggccggca caagacattt 720
 tctacgtgtg tatccacct cactgtggtg gtcacgcact atagttttgc ctcttttatc 780
 tacctcaagc ccaaggccct ccattctatg tacagtgcg ccttgatggc caccacctat 840
 actgtcttca ccccttccct tagcccaatc attttcagcc taaggaacaa ggagctgaag 900
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<210> 53
 <211> 310
 <212> PRT
 <213> Homo sapiens

<220>
 <221> MOD_RES
 <222> (126)
 <223> Variable amino acid

<220>
 <221> MOD_RES
 <222> (146)
 <223> Variable amino acid

<220>

<221> MOD_RES

<222> (148)

<223> Variable amino acid

<400> 53

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Cys	Arg	Gln	Glu	Leu	Gln	Val	Leu	Phe	Phe	Val	Val	Phe	Leu	Ala	Val
			20					25					30		
Tyr	Met	Ile	Thr	Leu	Leu	Gly	Asn	Ile	Gly	Met	Ile	Ile	Leu	Ile	Ser
		35					40					45			
Ile	Ser	Pro	Gln	Leu	Gln	Ser	Pro	Met	Tyr	Phe	Phe	Leu	Ser	His	Leu
	50					55					60				
Ser	Phe	Ala	Asp	Val	Cys	Phe	Ser	Ser	Asn	Val	Thr	Pro	Lys	Met	Leu
65					70					75					80
Glu	Asn	Leu	Leu	Ser	Glu	Thr	Lys	Thr	Ile	Ser	Tyr	Val	Gly	Cys	Leu
				85					90					95	
Val	Gln	Cys	Tyr	Phe	Phe	Ile	Ala	Val	Val	His	Val	Glu	Val	Tyr	Ile
		100						105					110		
Leu	Ala	Val	Met	Ala	Phe	Asp	Arg	Tyr	Met	Ala	Gly	Cys	Xaa	Pro	Leu
	115						120					125			
Leu	Tyr	Gly	Ser	Lys	Met	Ser	Arg	Thr	Val	Cys	Val	Arg	Leu	Ile	Ser
	130					135						140			
Val	Xaa	Tyr	Xaa	Tyr	Gly	Phe	Ser	Val	Ser	Leu	Ile	Cys	Thr	Leu	Trp
145					150					155					160
Thr	Tyr	Gly	Leu	Tyr	Phe	Cys	Gly	Asn	Phe	Glu	Ile	Asn	His	Phe	Tyr
			165						170					175	
Cys	Ala	Asp	Pro	Pro	Leu	Ile	Gln	Ile	Ala	Cys	Gly	Arg	Val	His	Ile
			180					185					190		
Lys	Glu	Ile	Thr	Met	Ile	Val	Ile	Ala	Gly	Ile	Asn	Phe	Thr	Tyr	Ser
		195					200					205			
Leu	Ser	Val	Val	Leu	Ile	Ser	Tyr	Thr	Leu	Ile	Val	Val	Ala	Val	Leu
	210					215					220				
Arg	Met	Arg	Ser	Ala	Asp	Gly	Arg	Arg	Lys	Ala	Phe	Ser	Thr	Cys	Gly
225					230					235					240
Ser	His	Leu	Thr	Ala	Val	Ser	Met	Phe	Tyr	Gly	Thr	Pro	Ile	Phe	Met
				245					250					255	
Tyr	Leu	Arg	Arg	Pro	Thr	Glu	Glu	Ser	Val	Glu	Gln	Gly	Lys	Met	Val
			260					265					270		

Ala Val Phe Tyr Thr Thr Val Ile Pro Met Leu Asn Pro Met Ile Tyr
 275 280 285

Ser Leu Arg Asn Lys Asp Val Lys Glu Ala Val Asn Lys Ala Ile Thr
 290 295 300

Lys Thr Tyr Val Arg Gln
 305 310

<210> 54
 <211> 933
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (378)
 <223> A, T, C or G

<220>
 <221> modified_base
 <222> (436)..(438)
 <223> A, T, C or G

<220>
 <221> modified_base
 <222> (443)..(444)
 <223> A, T, C or G

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 attggtatga tcattttgat tagcatcagt cctcagcttc agagtcccat gtactttttc 180
 ctgagtcatc tgtcttttgc ggacgtgtgc ttctcctcca acgttaccac caaaatgctg 240
 gaaaacttat tatcagagac aaaaaccatt tcctatgtgg gatgcttggt gcagtgtctac 300
 tttttcattg ccgttggtcca cgtggagggt tatatcctgg ctgtgatggc ctttgacagg 360
 tacatggccg gctgcaancc tctgctttat ggagtaaaaa tgtctaggac tgtgtgtgtt 420
 cggctcatct ctgtgnnnta tgnntatgga ttctctgtca gcctaatatg cacactatgg 480
 acttatggct tatacttctg tggaaacttt gaaatcaatc acttctattg tgcagatccc 540
 cctctcatcc agattgcctg tgggagagtg cacatcaaag aaatcacaat gattgttatt 600
 gctggaatta acttcacata ttccctctcg gtggtcctca tctcctacac tctcattgta 660
 gtagctgtgc tacgcatgcg ctctgccgat ggcaggagga aggcgttctc cacctgtggg 720
 tcccacttga cggctgtttc tatgttttat gggaccccca tcttcattga tctcaggaga 780
 cccactgagg aatccgtaga gcagggcaaa atggtggctg tgttttacac cacagtaatt 840
 cctatgttga atcccatgat ctacagtctg agaaataagg atgtaaaaga agcagtcaac 900
 aaagcaatca ccaagacata tgtgaggcag taa 933

<210> 55
 <211> 318
 <212> PRT
 <213> Homo sapiens

<400> 55
 Met Met Ser Phe Ala Pro Asn Ala Ser His Ser Pro Val Phe Leu Leu

1	5	10	15
Leu Gly Phe Ser Arg Ala Asn Ile Ser Tyr Thr Leu Leu Phe Phe Leu	20	25	30
Phe Leu Ala Ile Tyr Leu Thr Thr Ile Leu Gly Asn Val Thr Leu Val	35	40	45
Leu Leu Ile Ser Trp Asp Ser Arg Leu His Ser Pro Met Tyr Tyr Leu	50	55	60
Leu Arg Gly Leu Ser Val Ile Asp Met Gly Leu Ser Thr Val Thr Leu	65	70	75
Pro Gln Leu Leu Ala His Leu Val Ser His Tyr Pro Thr Ile Pro Ala	85	90	95
Ala Arg Cys Leu Ala Gln Phe Phe Phe Phe Tyr Ala Phe Gly Val Thr	100	105	110
Asp Thr Leu Val Ile Ala Val Met Ala Leu Asp Arg Tyr Val Ala Ile	115	120	125
Cys Asp Pro Leu His Tyr Ala Leu Val Met Asn His Gln Arg Cys Ala	130	135	140
Cys Leu Leu Ala Leu Ser Trp Val Val Ser Ile Leu His Thr Met Leu	145	150	155
Arg Val Gly Leu Val Leu Pro Leu Cys Trp Thr Gly Asp Ala Gly Gly	165	170	175
Asn Val Asn Leu Pro His Phe Phe Cys Asp His Arg Pro Leu Leu Arg	180	185	190
Ala Ser Cys Ser Asp Ile His Ser Asn Glu Leu Ala Ile Phe Phe Glu	195	200	205
Gly Gly Phe Leu Met Leu Gly Pro Cys Ala Leu Ile Val Leu Ser Tyr	210	215	220
Val Arg Ile Gly Ala Ala Ile Leu Arg Leu Pro Ser Ala Ala Gly Arg	225	230	235
Arg Arg Ala Val Ser Thr Cys Gly Ser His Leu Thr Met Val Gly Phe	245	250	255
Leu Tyr Gly Thr Ile Ile Cys Val Tyr Phe Gln Pro Pro Phe Gln Asn	260	265	270
Ser Gln Tyr Gln Asp Met Val Ala Ser Val Met Tyr Thr Ala Ile Thr	275	280	285
Pro Leu Ala Asn Pro Phe Val Tyr Ser Leu His Asn Lys Asp Val Lys	290	295	300
Gly Ala Leu Cys Arg Leu Leu Glu Trp Val Lys Val Asp Pro			

305

310

315

<210> 56
 <211> 957
 <212> DNA
 <213> Homo sapiens

<400> 56
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 atactgggga atgtgacact ggtgctgctc atctcctggg actccagact gcactcacc 180
 atgtattatc tgcttcgtgg cctctctgtg atagacatgg ggctatccac agttacactg 240
 cccagttgc tggccattt ggtctctcat taccacaacca ttctgctgc ccgtgcttg 300
 gctcagttct ttttcttcta tgcatttggg gttacagata cacttgctcat tgctgtcatg 360
 gctctggatc gctatgtggc catctgtgac cccctgcact atgctttggt aatgaatcac 420
 caacggtgtg cctgcttact agccttgagc tgggtggtgt ccatactgca caccatgttg 480
 cgtgtgggac tcgtcctgcc tctttgctgg actggggatg ctgggggcaa cgttaacctt 540
 cctcacttct tttgtgacca ccggccactt ctgcgagcct ctgtttctga catacattct 600
 aatgagctgg ccatattctt tgagggtggc ttctttatgc tgggcccctg tgccctcatt 660
 gtactctctt atgtccgaat tggggccgct attctacgtt tgccttcagc tgctggctgc 720
 gcgcgagcag tctccacctg tggatccac ctcaccatgg ttggtttcct ctacggcacc 780
 atcatttgtg tctacttcca gcctcccttc cagaactctc agtatcagga catggtggct 840
 tcagtaatgt atactgccat tacacctttg gccaacccat ttgtgtatag cctccacaat 900
 aaggatgtca aggggtgcact ctgcaggctg cttgaatggg tgaaggtaga cccctga 957

<210> 57
 <211> 326
 <212> PRT
 <213> Homo sapiens

<220>
 <221> MOD_RES
 <222> (142)..(143)
 <223> Variable amino acid

<400> 57
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 Arg Met Ala Ala Gly Asn His Ser Thr Val Thr Glu Phe Ile Leu Lys
 20 25 30
 Gly Leu Thr Lys Arg Ala Asp Leu Gln Leu Pro Leu Phe Leu Leu Phe
 35 40 45
 Leu Gly Ile Tyr Leu Val Thr Ile Val Gly Asn Leu Gly Met Ile Thr
 50 55 60
 Leu Ile Cys Leu Asn Ser Gln Leu His Thr Pro Met Tyr Tyr Phe Leu
 65 70 75 80
 Ser Asn Leu Ser Leu Met Asp Leu Cys Tyr Ser Ser Val Ile Thr Pro
 85 90 95
 Lys Met Leu Val Asn Phe Val Ser Glu Lys Asn Ile Ile Ser Tyr Ala

100					105					110						
Gly	Cys	Met	Ser	Gln	Leu	Tyr	Phe	Phe	Leu	Val	Phe	Val	Ile	Ala	Glu	
115					120					125						
Cys	Tyr	Met	Leu	Thr	Val	Met	Ala	Tyr	Asp	Arg	Tyr	Val	Xaa	Xaa	Cys	
130					135					140						
His	Pro	Leu	Leu	Tyr	Asn	Ile	Ile	Met	Ser	His	His	Thr	Cys	Leu	Leu	
145					150					155					160	
Leu	Val	Ala	Val	Val	Tyr	Ala	Ile	Gly	Leu	Ile	Gly	Ser	Thr	Ile	Glu	
165					170					175						
Thr	Gly	Leu	Met	Leu	Lys	Leu	Pro	Tyr	Cys	Glu	His	Leu	Ile	Ser	His	
180					185					190						
Tyr	Phe	Cys	Asp	Ile	Leu	Pro	Leu	Met	Lys	Leu	Ser	Cys	Ser	Ser	Thr	
195					200					205						
Tyr	Asp	Val	Glu	Met	Thr	Val	Phe	Phe	Ser	Ala	Gly	Phe	Asn	Ile	Ile	
210					215					220						
Val	Thr	Ser	Leu	Thr	Val	Leu	Val	Ser	Tyr	Thr	Phe	Ile	Leu	Ser	Ser	
225					230					235					240	
Ile	Leu	Gly	Ile	Ser	Thr	Thr	Glu	Gly	Arg	Ser	Lys	Ala	Phe	Ser	Thr	
245					250					255						
Cys	Ser	Ser	His	Leu	Ala	Ala	Val	Gly	Met	Phe	Tyr	Gly	Ser	Thr	Ala	
260					265					270						
Phe	Met	Tyr	Leu	Lys	Pro	Ser	Thr	Ile	Ser	Ser	Leu	Thr	Gln	Glu	Asn	
275					280					285						
Val	Ala	Ser	Val	Phe	Tyr	Thr	Thr	Val	Ile	Pro	Met	Leu	Asn	Pro	Leu	
290					295					300						
Ile	Tyr	Ser	Leu	Arg	Asn	Lys	Glu	Val	Lys	Ala	Ala	Val	Gln	Lys	Thr	
305					310					315					320	
Leu	Arg	Gly	Lys	Leu	Phe											
325																

<210> 58
 <211> 981
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (425)
 <223> A, T, C or G

<220>
 <221> modified_base

<222> (427)

<223> A, T, C or G

<400> 58

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cagctcccc tctttctcct ctccctcggg atctacttgg tcaccatcgt ggggaacctg 180
ggcatgatca ctctaatttg tctgaactct cagctgcaca ccccatgta ctactttctc 240
agcaatctgt cactcatgga tctctgctac tcctccgtca ttaccocctaa gatgctggtg 300
aactttgtgt cagagaaaaa catcatctcc tacgcagggt gcatgtcaca gctctacttc 360
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gttgncntct gccacccttt gctttacaac atcattatgt ctcacacac ctgcctgctg 480
ctgggtggctg tgggtctacgc catcggaactc attggctcca caatagaaac tggcctcatg 540
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atgaagctgt cctgctctag cacctatgat gttgagatga cagtcttctt ttcggctgga 660
ttcaacatca tagtcacgag cttaacagtt cttgtttctt acaccttcat tctctccagc 720
atcctcggca tcagcaccac agagggggaga tccaaagcct tcagcacctg cagctcccac 780
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atcagttcct tgaccagga gaatgtggcc tctgtgttct acaccacggt aatccccatg 900
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ctgaggggta aactgttttg a 981
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<210> 59

<211> 311

<212> PRT

<213> Homo sapiens

<400> 59

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Met Gly Thr Gly Asn Asp Thr Thr Val Val Glu Phe Thr Leu Leu Gly
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Leu Ser Glu Asp Thr Thr Val Cys Ala Ile Leu Phe Leu Val Phe Leu
      20             25             30

Gly Ile Tyr Val Val Thr Leu Met Gly Asn Ile Ser Ile Ile Val Leu
      35             40             45

Ile Arg Arg Ser His His Leu His Thr Pro Met Tyr Ile Phe Leu Cys
      50             55             60

His Leu Ala Phe Val Asp Ile Gly Tyr Ser Ser Ser Val Thr Pro Val
      65             70             75             80

Met Leu Met Ser Phe Leu Arg Lys Glu Thr Ser Leu Pro Val Ala Gly
      85             90             95

Cys Val Ala Gln Leu Cys Ser Val Val Thr Phe Gly Thr Ala Glu Cys
      100            105            110

Phe Leu Leu Ala Ala Met Ala Tyr Asp Arg Tyr Val Ala Ile Cys Ser
      115            120            125

Pro Leu Leu Tyr Ser Thr Cys Met Ser Pro Gly Val Cys Ile Ile Leu
      130            135            140

Val Gly Met Ser Tyr Leu Gly Gly Cys Val Asn Ala Trp Thr Phe Ile
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145		150		155		160
Gly Cys Leu Leu Arg	Leu Ser Phe Cys Gly	Pro Asn Lys Val	Asn His			
	165	170	175			
Phe Phe Cys Asp Tyr	Ser Pro Leu Leu Lys	Leu Ala Cys Ser	His Asp			
	180	185	190			
Phe Thr Phe Glu Ile	Ile Pro Ala Ile	Ser Ser Gly Ser	Ile Ile Val			
	195	200	205			
Ala Thr Val Cys Val	Ile Ala Ile Ser	Tyr Ile Tyr Ile	Leu Ile Thr			
	210	215	220			
Ile Leu Lys Met His	Ser Thr Lys Gly	Arg His Lys Ala	Phe Ser Thr			
225	230	235	240			
Cys Thr Ser His Leu	Thr Ala Val Thr	Leu Phe Tyr Gly	Thr Ile Thr			
	245	250	255			
Phe Ile Tyr Val Met	Pro Lys Ser Ser	Tyr Ser Thr Asp	Gln Asn Lys			
	260	265	270			
Val Val Ser Val Phe	Tyr Thr Val Val	Ile Pro Met Leu	Asn Pro Leu			
	275	280	285			
Ile Tyr Ser Leu Arg	Asn Lys Glu Ile	Lys Gly Ala Leu	Lys Arg Glu			
	290	295	300			
Leu Arg Ile Lys Ile	Phe Ser					
305	310					

<210> 60
 <211> 936
 <212> DNA
 <213> Homo sapiens

<400> 60
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 ggtaatatca gcataattgt attgatcaga agaagtcac atcttcatac acccatgtac 180
 attttcctct gccatttggc ctttgttagac attgggtact cctcatcagt cacacctgtc 240
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 ggctgcttat taagactgtc cttctgtggg ccaaataaag tcaatcactt tttctgtgac 540
 tattcaccac ttttgaagct tgcttgttcc catgatttta cttttgaaat aattccagct 600
 atctcttctg gatctatcat tgtggccact gtgtgtgtca tagccatata ctacatctat 660
 atcctcatca ccaccttgaa gatgcactcc accaagggcc gccacaaggc cttctccacc 720
 tgcacctccc acctcactgc agtcactctg ttctatggga ccattacctt catttatgtg 780
 atgcccaggt ccagctactc aactgaccag aacaagggtg tgtctgtgtt ctacaccgtg 840
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 ctgaagagag agcttagaat aaaaatattt tcttga 936

<210> 61

<211> 322

<212> PRT

<213> Homo sapiens

<400> 61

Met	Asn	Ser	Leu	Lys	Asp	Gly	Asn	His	Thr	Ala	Leu	Thr	Gly	Phe	Ile
1				5					10					15	
Leu	Leu	Gly	Leu	Thr	Asp	Asp	Pro	Ile	Leu	Arg	Val	Ile	Leu	Phe	Met
			20					25					30		
Ile	Ile	Leu	Ser	Gly	Asn	Leu	Ser	Ile	Ile	Ile	Leu	Ile	Arg	Ile	Ser
		35					40					45			
Ser	Gln	Leu	His	His	Pro	Met	Tyr	Phe	Phe	Leu	Ser	His	Leu	Ala	Phe
	50					55					60				
Ala	Asp	Met	Ala	Tyr	Ser	Ser	Ser	Val	Thr	Pro	Asn	Met	Leu	Val	Asn
	65				70					75					80
Phe	Leu	Val	Glu	Arg	Asn	Thr	Val	Ser	Tyr	Leu	Gly	Cys	Ala	Ile	Gln
				85					90					95	
Leu	Gly	Ser	Ala	Ala	Phe	Phe	Ala	Thr	Val	Glu	Cys	Val	Leu	Leu	Ala
			100					105					110		
Ala	Met	Ala	Tyr	Asp	Arg	Phe	Val	Ala	Ile	Cys	Ser	Pro	Leu	Leu	Tyr
		115					120					125			
Ser	Thr	Lys	Met	Ser	Thr	Gln	Val	Ser	Val	Gln	Leu	Leu	Leu	Val	Val
	130					135					140				
Tyr	Ile	Ala	Gly	Phe	Leu	Ile	Ala	Val	Ser	Tyr	Thr	Thr	Ser	Phe	Tyr
145					150					155					160
Phe	Leu	Leu	Phe	Cys	Gly	Pro	Asn	Gln	Val	Asn	His	Phe	Phe	Cys	Asp
				165					170					175	
Phe	Ala	Pro	Leu	Leu	Glu	Leu	Ser	Cys	Ser	Asp	Ile	Ser	Val	Ser	Thr
			180					185					190		
Val	Val	Leu	Ser	Phe	Ser	Ser	Gly	Ser	Ile	Ile	Val	Val	Thr	Val	Cys
		195					200					205			
Val	Ile	Ala	Val	Cys	Tyr	Ile	Tyr	Ile	Leu	Ile	Thr	Ile	Leu	Lys	Met
	210					215					220				
Arg	Ser	Thr	Glu	Gly	His	His	Lys	Ala	Phe	Ser	Thr	Cys	Thr	Ser	His
225					230					235					240
Leu	Thr	Val	Val	Thr	Leu	Phe	Tyr	Gly	Thr	Ile	Thr	Phe	Ile	Tyr	Val
				245					250					255	
Met	Pro	Asn	Phe	Ser	Tyr	Ser	Thr	Asp	Gln	Asn	Lys	Val	Val	Ser	Val
			260					265					270		

Leu Tyr Thr Val Val Ile Pro Met Leu Asn Pro Leu Ile Tyr Ser Leu
 275 280 285

Arg Asn Lys Glu Ile Lys Gly Ala Leu Lys Arg Glu Leu Val Arg Lys
 290 295 300

Ile Leu Ser His Asp Ala Cys Tyr Phe Ser Arg Thr Ser Asn Asn Asp
 305 310 315 320

Ile Thr

<210> 62
 <211> 969
 <212> DNA
 <213> Homo sapiens

<400> 62
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 cacttggttt ttgctgacat ggcctattca tcttctgtca caccacaacat gcttgtaaac 240
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 gctttctttg caacagtcga atgcgtcctt ctggctgcca tggcctatga ccgctttgtg 360
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 attacatag 969

<210> 63
 <211> 332
 <212> PRT
 <213> Homo sapiens

<400> 63
 Met Leu Glu Gly Val Glu His Leu Leu Leu Leu Leu Leu Thr Asp
 1 5 10 15
 Val Asn Ser Lys Glu Leu Gln Ser Gly Asn Gln Thr Ser Val Ser His
 20 25 30
 Phe Ile Leu Val Gly Leu His His Pro Pro Gln Leu Gly Ala Pro Leu
 35 40 45
 Phe Leu Ala Phe Leu Val Ile Tyr Leu Leu Thr Val Ser Gly Asn Gly
 50 55 60
 Leu Ile Ile Leu Thr Val Leu Val Asp Ile Arg Leu His Arg Pro Met

65	70	75	80
Cys Leu Phe Leu Cys His Leu Ser Phe Leu Asp Met Thr Ile Ser Cys	85	90	95
Ala Ile Val Pro Lys Met Leu Ala Gly Phe Leu Leu Gly Ser Arg Ile	100	105	110
Ile Ser Phe Gly Gly Cys Val Ile Gln Leu Phe Ser Phe His Phe Leu	115	120	125
Gly Cys Thr Glu Cys Phe Leu Tyr Thr Leu Met Ala Tyr Asp Arg Phe	130	135	140
Leu Ala Ile Cys Lys Pro Leu His Tyr Ala Thr Ile Met Thr His Arg	145	150	155
Val Cys Asn Ser Leu Ala Leu Gly Thr Trp Leu Gly Gly Thr Ile His	165	170	175
Ser Leu Phe Gln Thr Ser Phe Val Phe Arg Leu Pro Phe Cys Gly Pro	180	185	190
Asn Arg Val Asp Tyr Ile Phe Cys Asp Ile Pro Ala Met Leu Arg Leu	195	200	205
Ala Cys Ala Asp Thr Ala Ile Asn Glu Leu Val Thr Phe Ala Asp Ile	210	215	220
Gly Phe Leu Ala Leu Thr Cys Phe Met Leu Ile Leu Thr Ser Tyr Gly	225	230	235
Tyr Ile Val Ala Ala Ile Leu Arg Ile Pro Ser Ala Asp Gly Arg Arg	245	250	255
Asn Ala Phe Ser Thr Cys Ala Ala His Leu Thr Val Val Ile Val Tyr	260	265	270
Tyr Val Pro Cys Thr Phe Ile Tyr Leu Arg Pro Cys Ser Gln Glu Pro	275	280	285
Leu Asp Gly Val Val Ala Val Phe Tyr Thr Val Ile Thr Pro Leu Leu	290	295	300
Asn Ser Ile Ile Tyr Thr Leu Cys Asn Lys Glu Met Lys Ala Ala Leu	305	310	315
Gln Arg Leu Gly Gly His Lys Glu Val Gln Pro His	325	330	

<210> 64
 <211> 999
 <212> DNA
 <213> Homo sapiens

<400> 64

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acaagttttg tattccggct gcccttctgt ggccccaatc gggtcgacta catcttctgt 600
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<210> 65

<211> 312

<212> PRT

<213> Homo sapiens

<400> 65

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Met Glu Pro Leu Asn Arg Thr Glu Val Ser Glu Phe Phe Leu Lys Gly
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Phe Ser Gly Tyr Pro Ala Leu Glu His Leu Leu Phe Pro Leu Cys Ser
      20             25             30

Ala Met Tyr Leu Val Thr Leu Leu Gly Asn Thr Ala Ile Met Ala Val
      35             40             45

Ser Val Leu Asp Ile His Leu His Thr Pro Val Tyr Phe Phe Leu Gly
      50             55             60

Asn Leu Ser Thr Leu Asp Ile Cys Tyr Thr Pro Thr Phe Val Pro Leu
      65             70             75             80

Met Leu Val His Leu Leu Ser Ser Arg Lys Thr Ile Ser Phe Ala Val
      85             90             95

Cys Ala Ile Gln Met Cys Leu Ser Leu Ser Thr Gly Ser Thr Glu Cys
      100             105             110

Leu Leu Leu Ala Ile Thr Ala Tyr Asp Arg Tyr Leu Ala Ile Cys Gln
      115             120             125

Pro Leu Arg Tyr His Val Leu Met Ser His Arg Leu Cys Val Leu Leu
      130             135             140

Met Gly Ala Ala Trp Val Leu Cys Leu Leu Lys Ser Val Thr Glu Met
      145             150             155             160

Val Ile Ser Met Arg Leu Pro Phe Cys Gly His His Val Val Ser His
      165             170             175

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Phe Thr Cys Lys Ile Leu Ala Val Leu Lys Leu Ala Cys Gly Asn Thr
180 185 190
Ser Val Ser Glu Asp Phe Leu Leu Ala Gly Ser Ile Leu Leu Leu Pro
195 200 205
Val Pro Leu Ala Phe Ile Cys Leu Ser Tyr Leu Leu Ile Leu Ala Thr
210 215 220
Ile Leu Arg Val Pro Ser Ala Ala Arg Cys Cys Lys Ala Phe Ser Thr
225 230 235 240
Cys Leu Ala His Leu Ala Val Val Leu Leu Phe Tyr Gly Thr Ile Ile
245 250 255
Phe Met Tyr Leu Lys Pro Lys Ser Lys Glu Ala His Ile Ser Asp Glu
260 265 270
Val Phe Thr Val Leu Tyr Ala Met Val Thr Thr Met Leu Asn Pro Thr
275 280 285
Ile Tyr Ser Leu Arg Asn Lys Glu Val Lys Glu Ala Ala Arg Lys Val
290 295 300
Trp Gly Arg Ser Arg Ala Ser Arg
305 310

<210> 66
<211> 939
<212> DNA
<213> Homo sapiens

<400> 66
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gggaacacag ccacatggc ggtgagcgtg ctagatatcc acctgcacac gcccggtgac 180
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gaccgctacc tggccatctg ccagccactc aggtaccacg tgctcatgag ccaccggctc 420
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aagcccaaga gtaagggaag ccacatctct gatgaggtct tcacagtcct ctatgccatg 840
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gccaggaagg tgtggggcag ggtcggggc tccaggtga 939

<210> 67
<211> 305
<212> PRT
<213> Homo sapiens

<400> 67

Met	Tyr	Leu	Val	Thr	Val	Leu	Arg	Asn	Leu	Leu	Ser	Ile	Leu	Ala	Val	1	5	10	15
Ser	Ser	Asp	Ser	His	Pro	His	Thr	Pro	Met	Tyr	Phe	Phe	Leu	Ser	Asn	20	25	30	
Leu	Cys	Trp	Ala	Asp	Ile	Gly	Phe	Thr	Leu	Ala	Thr	Val	Pro	Lys	Met	35	40	45	
Ile	Val	Asp	Met	Gly	Ser	His	Ser	Lys	Val	Ile	Ser	Tyr	Gly	Gly	Cys	50	55	60	
Leu	Thr	Gln	Met	Ser	Phe	Leu	Val	Leu	Phe	Ala	Cys	Ile	Val	Asp	Met	65	70	75	80
Phe	Leu	Thr	Val	Met	Ala	Tyr	Asp	Cys	Phe	Val	Ala	Ile	Cys	Arg	Pro	85	90	95	
Leu	His	Tyr	Pro	Val	Ile	Val	Asn	Pro	His	Leu	Cys	Val	Phe	Phe	Val	100	105	110	
Leu	Val	Ser	Phe	Phe	Leu	Ser	Leu	Leu	Asp	Ser	Gln	Leu	His	Ser	Trp	115	120	125	
Ile	Val	Leu	Gln	Phe	Thr	Phe	Phe	Lys	Asn	Val	Glu	Ile	Ser	Asn	Phe	130	135	140	
Val	Cys	Glu	Pro	Ser	Gln	Leu	Leu	Lys	Leu	Ala	Ser	Tyr	Asp	Ser	Val	145	150	155	160
Ile	Asn	Ser	Ile	Phe	Ile	Tyr	Phe	Asp	Asn	Thr	Met	Phe	Gly	Phe	Leu	165	170	175	
Pro	Ile	Ser	Gly	Ile	Leu	Leu	Ser	Tyr	Tyr	Lys	Ile	Val	Pro	Ser	Ile	180	185	190	
Leu	Arg	Ile	Ser	Ser	Ser	Asp	Gly	Lys	Tyr	Lys	Ala	Phe	Ser	Ala	Cys	195	200	205	
Gly	Cys	His	Leu	Ala	Val	Val	Cys	Leu	Phe	Tyr	Gly	Thr	Gly	Ile	Gly	210	215	220	
Val	Tyr	Leu	Thr	Ser	Ala	Val	Ala	Pro	Pro	Leu	Arg	Asn	Gly	Met	Val	225	230	235	240
Ala	Ser	Val	Met	Tyr	Ala	Val	Val	Thr	Pro	Met	Leu	Asn	Pro	Phe	Ile	245	250	255	
Tyr	Ser	Leu	Arg	Asn	Arg	Asp	Ile	Gln	Ser	Ala	Leu	Trp	Arg	Val	Cys	260	265	270	
Asn	Lys	Thr	Val	Glu	Ser	His	Asp	Leu	Phe	His	Pro	Phe	Ser	Cys	Val	275	280	285	
Val	Glu	Lys	Gly	Gln	Pro	His	Ser	Ile	Pro	Thr	Ser	Ala	Asn	Pro	Ala				

290

295

300

Pro
305

<210> 68

<211> 918

<212> DNA

<213> Homo sapiens

<400> 68

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<210> 69

<211> 319

<212> PRT

<213> Homo sapiens

<400> 69

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Met Glu Lys Ala Asn Glu Thr Ser Pro Val Met Gly Phe Val Leu Leu
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Arg Leu Ser Ala His Pro Glu Leu Glu Lys Thr Phe Phe Val Leu Ile
      20             25             30

Leu Leu Met Tyr Leu Val Ile Leu Leu Gly Asn Gly Val Leu Ile Leu
      35             40             45

Val Thr Ile Leu Asp Ser Arg Leu His Thr Pro Met Tyr Phe Phe Leu
      50             55             60

Gly Asn Leu Ser Phe Leu Asp Ile Cys Phe Thr Thr Ser Ser Val Pro
      65             70             75             80

Leu Val Leu Asp Ser Phe Leu Thr Pro Gln Glu Thr Ile Ser Phe Ser
      85             90             95

Ala Cys Ala Val Gln Met Ala Leu Ser Phe Ala Met Ala Gly Thr Glu
      100            105            110

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Cys Leu Leu Leu Ser Met Met Ala Phe Asp Arg Tyr Val Ala Ile Cys
 115 120 125
 Asn Pro Leu Arg Tyr Ser Val Ile Met Ser Lys Ala Ala Tyr Met Pro
 130 135 140
 Met Ala Ala Ser Ser Trp Ala Ile Gly Gly Ala Ala Ser Val Val His
 145 150 155 160
 Thr Ser Leu Ala Ile Gln Leu Pro Phe Cys Gly Asp Asn Val Ile Asn
 165 170 175
 His Phe Thr Cys Glu Ile Leu Ala Val Leu Lys Leu Ala Cys Ala Asp
 180 185 190
 Ile Ser Ile Asn Val Ile Ser Met Glu Val Thr Asn Val Ile Phe Leu
 195 200 205
 Gly Val Pro Val Leu Phe Ile Ser Phe Ser Tyr Val Phe Ile Ile Thr
 210 215 220
 Thr Ile Leu Arg Ile Pro Ser Ala Glu Gly Arg Lys Lys Val Phe Ser
 225 230 235 240
 Thr Cys Ser Ala His Leu Thr Val Val Ile Val Phe Tyr Gly Thr Leu
 245 250 255
 Phe Phe Met Tyr Gly Lys Pro Lys Ser Lys Asp Ser Met Gly Ala Asp
 260 265 270
 Lys Glu Asp Leu Ser Asp Lys Leu Ile Pro Leu Phe Tyr Gly Val Val
 275 280 285
 Thr Pro Met Leu Asn Pro Ile Ile Tyr Ser Leu Arg Asn Lys Asp Val
 290 295 300
 Lys Ala Ala Val Arg Arg Leu Leu Arg Pro Lys Gly Phe Thr Gln
 305 310 315

<210> 70

<211> 960

<212> DNA

<213> Homo sapiens

<400> 70

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<210> 71

<211> 300

<212> PRT

<213> Homo sapiens

<400> 71

Met	Tyr	Leu	Val	Thr	Val	Leu	Arg	Asn	Leu	Leu	Ile	Ile	Leu	Ala	Val	1	5	10	15
Ser	Ser	Asp	Ser	His	Leu	His	Thr	Pro	Met	Cys	Phe	Phe	Leu	Ser	Asn	20	25	30	
Leu	Cys	Trp	Ala	Asp	Ile	Gly	Phe	Thr	Ser	Ala	Met	Val	Pro	Lys	Met	35	40	45	
Ile	Val	Asp	Met	Gln	Ser	His	Ser	Arg	Val	Ile	Ser	Tyr	Ala	Gly	Cys	50	55	60	
Leu	Thr	Gln	Met	Ser	Phe	Phe	Val	Leu	Phe	Ala	Cys	Ile	Glu	Asp	Met	65	70	75	80
Leu	Leu	Thr	Val	Met	Ala	Tyr	Asp	Arg	Phe	Val	Ala	Ile	Cys	His	Pro	85	90	95	
Leu	His	Tyr	Pro	Val	Ile	Met	Asn	Pro	His	Leu	Gly	Val	Phe	Leu	Val	100	105	110	
Leu	Val	Ser	Phe	Phe	Leu	Ser	Leu	Leu	Asp	Ser	Gln	Leu	His	Ser	Trp	115	120	125	
Ile	Val	Leu	Gln	Phe	Thr	Phe	Phe	Lys	Asn	Val	Glu	Ile	Ser	Asn	Phe	130	135	140	
Val	Cys	Asp	Pro	Ser	Gln	Leu	Leu	Asn	Leu	Ala	Cys	Ser	Asp	Ser	Val	145	150	155	160
Ile	Asn	Ser	Ile	Phe	Ile	Tyr	Leu	Asp	Ser	Ile	Met	Phe	Gly	Phe	Leu	165	170	175	
Pro	Ile	Ser	Gly	Ile	Leu	Leu	Ser	Tyr	Ala	Asn	Asn	Val	Pro	Ser	Ile	180	185	190	
Leu	Arg	Ile	Ser	Ser	Ser	Asp	Arg	Lys	Ser	Lys	Ala	Phe	Ser	Thr	Cys	195	200	205	
Gly	Ser	His	Leu	Ala	Val	Val	Cys	Leu	Phe	Tyr	Gly	Thr	Gly	Ile	Gly	210	215	220	
Val	Tyr	Leu	Thr	Ser	Ala	Val	Ser	Pro	Pro	Pro	Arg	Asn	Gly	Val	Val	225	230	235	240

Ala Ser Val Met Tyr Ala Val Val Thr Pro Met Leu Asn Pro Phe Ile
245 250 255

Tyr Ser Leu Arg Asn Arg Asp Ile Gln Ser Ala Leu Trp Arg Leu Arg
260 265 270

Ser Arg Thr Val Glu Ser His Asp Leu Leu Ser Gln Asp Leu Leu His
275 280 285

Pro Phe Ser Cys Val Gly Glu Lys Gly Gln Pro His
290 295 300

<210> 72
<211> 903
<212> DNA
<213> Homo sapiens

<400> 72
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acctcggccca tggttcccaa gatgattgtg gacatgcagt cgcatagcag agtcatctct 180
tatgcgggct gcctgacaca gatgtctttc tttgtccttt ttgcatgtat agaagacatg 240
ctcctgacag tgatggccta tgaccgattt gtggccatct gtcacccct gcactacca 300
gtcatcatga atcctcacct tgggtgtcttc ttagttttgg tgtccttttt cctcagcctg 360
ttggattccc agctgcacag ttggattgtg ttacaattca cttcttcaa gaatgtggaa 420
atctccaatt ttgtctgtga cccatctcaa cttctcaacc ttgcctgttc tgacagtgtc 480
atcaatagca tattcatata tttagatagt attatgtttg gttttcttcc catttcaggg 540
atccttttgt cttacgctaa caatgtcccc tccattctaa gaatttcac atcagatagg 600
aagtctaaag cttctccac ctgtggctct cacctggcag ttgtttgctt attttatgga 660
acaggcattg gcgtgtacct gacttcagct gtgtcaccac cccccaggaa tgggtgtggtg 720
gcatcagtga tgtacgtgt ggtcaccctc atgctgaacc ctttcatcta cagcctgaga 780
aatagggaca ttcaaagtgc cctgtggagg ctgctgagca gaacagtcga atctcatgat 840
ctgttatctc aagatctgct ccaccccttt tcttgtgtgg gtgagaaagg tcaaccacat 900
taa 903

<210> 73
<211> 314
<212> PRT
<213> Homo sapiens

<400> 73
Met Gly Val Lys Asn His Ser Thr Val Thr Glu Phe Leu Leu Ser Gly
1 5 10 15
Leu Thr Glu Gln Ala Glu Leu Gln Leu Pro Leu Phe Cys Leu Phe Leu
20 25 30
Gly Ile Tyr Thr Val Thr Val Val Gly Asn Leu Ser Met Ile Ser Ile
35 40 45
Ile Arg Leu Asn Arg Gln Leu His Thr Pro Met Tyr Tyr Phe Leu Ser
50 55 60
Ser Leu Ser Phe Leu Asp Phe Cys Tyr Ser Ser Val Ile Thr Pro Lys

65	70	75	80
Met Leu Ser Gly Phe Leu Cys Arg Asp Arg Ser Ile Ser Tyr Ser Gly	85	90	95
Cys Met Ile Gln Leu Phe Phe Phe Cys Val Cys Val Ile Ser Glu Cys	100	105	110
Tyr Met Leu Ala Ala Met Ala Cys Asp Arg Tyr Val Ala Ile Cys Ser	115	120	125
Pro Leu Leu Tyr Arg Val Ile Met Ser Pro Arg Val Cys Ser Leu Leu	130	135	140
Val Ala Ala Val Phe Ser Val Gly Phe Thr Asp Ala Val Ile His Gly	145	150	155
Gly Cys Ile Leu Arg Leu Ser Phe Cys Gly Ser Asn Ile Ile Lys His	165	170	175
Tyr Phe Cys Asp Ile Val Pro Leu Ile Lys Leu Ser Cys Ser Ser Thr	180	185	190
Tyr Ile Asp Glu Leu Leu Ile Phe Val Ile Gly Gly Phe Asn Met Val	195	200	205
Ala Thr Ser Leu Thr Ile Ile Ile Ser Tyr Ala Phe Ile Leu Thr Ser	210	215	220
Ile Leu Arg Ile His Ser Lys Lys Gly Arg Cys Lys Ala Phe Ser Thr	225	230	235
Cys Ser Ser His Leu Thr Ala Val Leu Met Phe Tyr Gly Ser Leu Met	245	250	255
Ser Met Tyr Leu Lys Pro Ala Ser Ser Ser Ser Leu Thr Gln Glu Lys	260	265	270
Val Ser Ser Val Phe Tyr Thr Thr Val Ile Leu Met Leu Asn Pro Leu	275	280	285
Ile Tyr Ser Leu Arg Asn Asn Glu Val Arg Asn Ala Leu Met Lys Leu	290	295	300
Leu Arg Arg Lys Ile Ser Leu Ser Pro Gly	305	310	

<210> 74

<211> 945

<212> DNA

<213> Homo sapiens

<400> 74

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ggaaacctca gcatgatctc aattattagg ctgaatcgtc aattcatatc ccccatgtac 180

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tatttctga gtagtttgtc ttttttagat ttctgctatt cttctgtcat taccctaaa 240
atgctatcag ggtttttatg cagagataga tccatctcct attctggatg catgattcag 300
ctgttttttt tctgtgtttg tggtatttct gaatgctaca tgctggcagc catggcctgc 360
gatcgctacg tggccatctg cagccactg ctctacaggg tcatcatgtc ccctaggggc 420
tggtctctgc tgggtggctgc tgtcttctca gtaggtttca ctgatgctgt gatccatgga 480
ggttgtatac tcagggttgtc tttctgtgga tcaaactca ttaaactta tttctgtgac 540
attgtccctc ttattaaact ctctgctcc agcacttata ttgatgagct tttgattttt 600
gtcattgggtg gatttaacat ggtggccaca agcctaacaa tcattatttc atatgctttt 660
atcctcacca gcacccctgc catccactct aaaaagggca ggtgcaaagc gtttagcacc 720
ttagctccc acctgacagc tgttcttatg ttttatgggt ctctgatgtc catgtatctc 780
aaacctgctt ctagcagttc actcaccag gagaaagtat cctcagtatt ttataccact 840
gtgattctca tggtgaatcc cttgatatat agtctgagga acaatgaagt aagaaatgct 900
ctgatgaaac ttttaagaag aaaaatatct ttatctccag gataa 945

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<210> 75

<211> 311

<212> PRT

<213> Homo sapiens

<400> 75

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Met Ser Asn Ala Thr Leu Leu Thr Ala Phe Ile Leu Thr Gly Leu Pro
  1                      5                      10                      15

His Ala Pro Gly Leu Asp Ala Pro Leu Phe Gly Ile Phe Leu Val Val
      20                      25                      30

Tyr Val Leu Thr Val Leu Gly Asn Leu Leu Ile Leu Leu Val Ile Arg
      35                      40                      45

Val Asp Ser His Leu His Thr Pro Met Tyr Tyr Phe Leu Thr Asn Leu
      50                      55                      60

Ser Phe Ile Asp Met Trp Phe Ser Thr Val Thr Val Pro Lys Met Leu
      65                      70                      75                      80

Met Thr Leu Val Ser Pro Ser Gly Arg Thr Ile Ser Phe His Ser Cys
      85                      90                      95

Val Ala Gln Leu Tyr Phe Phe His Phe Leu Gly Ser Thr Glu Cys Phe
      100                      105                      110

Leu Tyr Thr Val Met Ser Tyr Asp Arg Tyr Leu Ala Ile Ser Tyr Pro
      115                      120                      125

Leu Arg Tyr Thr Asn Met Met Thr Gly Arg Ser Cys Ala Leu Leu Ala
      130                      135                      140

Thr Gly Thr Trp Leu Ser Gly Ser Leu His Ser Ala Val Gln Thr Ile
      145                      150                      155                      160

Leu Thr Phe His Leu Pro Tyr Cys Gly Pro Asn Gln Ile Gln His Tyr
      165                      170                      175

Phe Cys Asp Ala Pro Pro Ile Leu Lys Leu Ala Cys Ala Asp Thr Ser
      180                      185                      190

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Ala Asn Glu Met Val Ile Phe Val Asn Ile Gly Leu Val Ala Ser Gly
195 200 205

Cys Phe Val Leu Ile Val Leu Ser Tyr Val Ser Ile Val Cys Ser Ile
210 215 220

Leu Arg Ile Arg Thr Ser Glu Gly Arg His Arg Ala Phe Gln Thr Cys
225 230 235 240

Ala Ser His Cys Ile Val Val Leu Cys Phe Phe Gly Pro Gly Leu Phe
245 250 255

Ile Tyr Leu Arg Pro Gly Ser Arg Asp Ala Leu His Gly Val Val Ala
260 265 270

Val Phe Tyr Thr Thr Leu Thr Pro Leu Phe Asn Pro Val Val Tyr Thr
275 280 285

Leu Arg Asn Lys Glu Val Lys Lys Ala Leu Leu Lys Leu Lys Asn Gly
290 295 300

Ser Val Phe Ala Gln Gly Glu
305 310

<210> 76
<211> 936
<212> DNA
<213> Homo sapiens

<400> 76
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ctggagcggc ccctctttgg aatcttctcg gtggtttacg tgctcactgt gctggggaac 120
ctcctcatcc tgctggtgat cagggtggat tctcacctcc acacccccat gtactacttc 180
ctcaccaacc tgctccttcat tgacatgtgg ttctccactg tcacgggtgcc caaaatgctg 240
atgaccttgg tgcccccaag cggcaggact atctccttcc acagctgcgt ggctcagctc 300
tattttttcc acttcctggg gagcaccgag tgtttcctct acacagtcac gtcctatgat 360
cgctacctgg ccatacagtta cccgctcagg tacaccaaca tgatgactgg gcgctcgtgt 420
gccctcctgg ccaccggcac ttgggtcagt ggctctctgc actctgctgt ccagaccata 480
ttgactttcc atttgcccta ctgtggaccc aaccagatcc agcactactt ctgtgacgca 540
ccgccccatcc tgaaactggc ctgtgcagac acctcagcca acgagatggg catctttgtg 600
aatattgggc tagtggcctc gggctgcttt gtctgatag tgctgtccta tgtgtccatc 660
gtctgttcca tcctgcggat ccgcacctca gaggggaggc acagagcctt tcagacctgt 720
gcctcccact gtatcgtggg cctttgcttc tttggccctg gtcttttcat ttacctgagg 780
ccaggctcca gggacgcctt gcatggggtt gtggccggtt tctacaccac gctgactcct 840
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ctgaaaaatg ggtcagtatt tgctcagggt gaatag 936

<210> 77
<211> 323
<212> PRT
<213> Homo sapiens

<400> 77
Met Asn Pro Glu Asn Trp Thr Gln Val Thr Ser Phe Val Leu Leu Gly
1 5 10 15

Phe Pro Ser Ser His Leu Ile Gln Phe Leu Val Phe Leu Gly Leu Met
20 25 30
Val Thr Tyr Ile Val Thr Ala Thr Gly Lys Leu Leu Ile Ile Val Leu
35 40 45
Ser Trp Ile Asp Gln Arg Leu His Ile Gln Met Tyr Phe Phe Leu Arg
50 55 60
Asn Phe Ser Phe Leu Glu Leu Leu Leu Val Thr Val Val Val Pro Lys
65 70 75 80
Met Leu Val Val Ile Leu Thr Gly Asp His Thr Ile Ser Phe Val Ser
85 90 95
Cys Ile Ile Gln Ser Tyr Leu Tyr Phe Phe Leu Gly Thr Thr Asp Phe
100 105 110
Phe Leu Leu Ala Val Met Ser Leu Asp Arg Tyr Leu Ala Ile Cys Arg
115 120 125
Pro Leu Arg Tyr Glu Thr Leu Met Asn Gly His Val Cys Ser Gln Leu
130 135 140
Val Leu Ala Ser Trp Leu Ala Gly Phe Leu Trp Val Leu Cys Pro Thr
145 150 155 160
Val Leu Met Ala Ser Leu Pro Phe Cys Gly Pro Asn Gly Ile Asp His
165 170 175
Phe Phe Arg Asp Ser Trp Pro Leu Leu Arg Leu Ser Cys Gly Asp Thr
180 185 190
His Leu Leu Lys Leu Val Ala Phe Met Leu Ser Thr Leu Val Leu Leu
195 200 205
Gly Ser Leu Ala Leu Thr Ser Val Ser Tyr Ala Cys Ile Leu Ala Thr
210 215 220
Val Leu Arg Ala Pro Thr Ala Ala Glu Arg Arg Lys Ala Phe Ser Thr
225 230 235 240
Cys Ala Ser His Leu Thr Val Val Val Ile Ile Tyr Gly Ser Ser Ile
245 250 255
Phe Leu Tyr Ile Arg Met Ser Glu Ala Gln Ser Lys Leu Leu Asn Lys
260 265 270
Gly Ala Ser Val Leu Ser Cys Ile Ile Thr Pro Leu Leu Asn Pro Phe
275 280 285
Ile Phe Thr Leu Arg Asn Asp Lys Val Gln Gln Ala Leu Arg Glu Ala
290 295 300
Leu Gly Trp Pro Arg Leu Thr Ala Val Met Lys Leu Arg Val Thr Ser
305 310 315 320

Gln Arg Lys

<210> 78
<211> 972
<212> DNA
<213> Homo sapiens

<400> 78
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cacctcatac agttcctggg gttcctgggg ttaatgggtga cctacattgt aacagccaca 120
ggcaagctgc taattattgt gctcagctgg atagaccaac gcctgcacat acagatgtac 180
ttcttcctgc ggaatttctc cttcctggag ctgttgctgg taactgttgt ggttcccaag 240
atgcttgctg tcatcctcac gggggatcac accatctcat ttgtcagctg catcatccag 300
tcctacctct acttctttct aggcaccact gacttcttcc tcttgccgt catgtctctg 360
gacgttacc tggcaatctg cgcaccactc cgctatgaga ccctgatgaa tggccatgtc 420
tgttcccaac tagtgctggc ctcttggtta gctggattcc tctgggtcct ttgccccact 480
gtcctcatgg ccagcctgcc ttcttggtgg cccaatggta ttgaccactt ctttcgtgac 540
agttggccct tgctcaggct ttcttggtgg gacaccacc tgctgaaact ggtggccttc 600
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attcttgcca ctgttctcag ggcacctaca gctgctgagc gaaggaaagc gttttccact 720
tgcgcctcgc atcttacagt ggtggtcatc atctatggca gttccatctt tctctacatt 780
cgtatgtcag aggctcagtc caaactgctc aacaaagggt cctccgtcct gagctgcac 840
atcacacccc tcttgaaccc attcatcttc actctccgca atgacaagggt gcagcaagca 900
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caaaggaaat ga 972

<210> 79
<211> 318
<212> PRT
<213> Homo sapiens

<400> 79
Met Asn Pro Ala Asn His Ser Gln Val Ala Gly Phe Val Leu Leu Gly
1 5 10 15
Leu Ser Gln Val Trp Glu Leu Arg Phe Val Phe Phe Thr Val Phe Ser
20 25 30
Ala Val Tyr Phe Met Thr Val Val Gly Asn Leu Leu Ile Val Val Ile
35 40 45
Val Thr Ser Asp Pro His Leu His Thr Thr Met Tyr Phe Leu Leu Gly
50 55 60
Asn Leu Ser Phe Leu Asp Phe Cys Tyr Ser Ser Ile Thr Ala Pro Arg
65 70 75 80
Met Leu Val Asp Leu Leu Ser Gly Asn Pro Thr Ile Ser Phe Gly Gly
85 90 95
Cys Leu Thr Gln Leu Phe Phe Phe His Phe Ile Gly Gly Ile Lys Ile
100 105 110

Phe Leu Leu Thr Val Met Ala Tyr Asp Arg Tyr Ile Ala Ile Ser Gln
115 120 125
Pro Leu His Tyr Thr Leu Ile Met Asn Gln Thr Val Cys Ala Leu Leu
130 135 140
Met Ala Ala Ser Trp Val Gly Gly Phe Ile His Ser Ile Val Gln Ile
145 150 155 160
Ala Leu Thr Ile Gln Leu Pro Phe Cys Gly Pro Asp Lys Leu Asp Asn
165 170 175
Phe Tyr Cys Asp Val Pro Gln Leu Ile Lys Leu Ala Cys Thr Asp Thr
180 185 190
Phe Val Leu Glu Leu Leu Met Val Ser Asn Asn Gly Leu Val Thr Leu
195 200 205
Met Cys Phe Leu Val Leu Leu Gly Ser Tyr Thr Ala Leu Leu Val Met
210 215 220
Leu Arg Ser His Ser Arg Glu Gly Arg Ser Lys Ala Leu Ser Thr Cys
225 230 235 240
Ala Ser His Ile Ala Val Val Thr Leu Ile Phe Val Pro Cys Ile Tyr
245 250 255
Val Tyr Thr Arg Pro Phe Arg Thr Phe Pro Met Asp Lys Ala Val Ser
260 265 270
Val Leu Tyr Thr Ile Val Thr Pro Met Leu Asn Pro Ala Ile Tyr Thr
275 280 285
Leu Arg Asn Lys Glu Val Ile Met Ala Met Lys Lys Leu Trp Arg Arg
290 295 300
Lys Lys Asp Pro Ile Gly Pro Leu Glu His Arg Pro Leu His
305 310 315

<210> 80

<211> 957

<212> DNA

<213> Homo sapiens

<400> 80

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ggaaaccttc ttattgtggt catagtgaac tccgaccac acctgcacac aaccatgtat 180
tttctcttgg gcaatctttc tttcctggac ttttgctact cttccatcac agcacctagg 240
atgctgggtg acttgctctc aggaaccct accatttcct ttggtggatg cctgactcaa 300
ctcttcttct tccacttcat tggaggcatc aagatcttcc tgctgactgt catggcgat 360
gaccgctaca ttgccatttc ccagccctg cactacacgc tcattatgaa tcagactgtc 420
tgtgcactcc ttatggcage ctctctgggtg gggggcttca tccactccat agtacagatt 480
gcattgacta tccagctgcc attctgtggg cctgacaagc tggacaactt ttattgtgat 540
gtgcctcagc tgatcaaatt ggccctgcaca gatacctttg tcttagagct tttaatggtg 600
tctaacaatg gcctggtgac cctgatgtgt tttctggtgc ttctgggatc gtacacagca 660

ctgctagtca tgctccgaag ccactcacgg gagggccgca gcaaggccct gtctacctgt 720
gcctctcaca ttgctgtggt gaccttaatc tttgtgcctt gcctctacgt ctatacaagg 780
ccttttcgga cattcccat ggacaaggcc gtctctgtgc tatacacaat tgtcaccccc 840
atgctgaatc ctgccatcta taccctgaga aacaaggaag tgatcatggc catgaagaag 900
ctgtggagga ggaaaaagga ccctattggt cccctggagc acagaccctt acattag 957

<210> 81

<211> 324

<212> PRT

<213> Homo sapiens

<400> 81

Met	Gln	Lys	Pro	Gln	Leu	Leu	Val	Pro	Ile	Ile	Ala	Thr	Ser	Asn	Gly
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Asn	Leu	Val	His	Ala	Ala	Tyr	Phe	Leu	Leu	Val	Gly	Ile	Pro	Gly	Leu
			20					25					30		
Gly	Pro	Thr	Ile	His	Phe	Trp	Leu	Ala	Phe	Pro	Leu	Cys	Phe	Met	Tyr
		35					40					45			
Ala	Leu	Ala	Thr	Leu	Gly	Asn	Leu	Thr	Ile	Val	Leu	Ile	Ile	Arg	Val
	50					55					60				
Glu	Arg	Arg	Leu	His	Glu	Pro	Met	Tyr	Leu	Phe	Leu	Ala	Met	Leu	Ser
65					70					75					80
Thr	Ile	Asp	Leu	Val	Leu	Ser	Ser	Ile	Thr	Met	Pro	Lys	Met	Ala	Ser
				85					90					95	
Leu	Phe	Leu	Met	Gly	Ile	Gln	Glu	Ile	Glu	Phe	Asn	Ile	Cys	Leu	Ala
			100					105					110		
Gln	Met	Phe	Leu	Ile	His	Ala	Leu	Ser	Ala	Val	Glu	Ser	Ala	Val	Leu
		115					120					125			
Leu	Ala	Met	Ala	Phe	Asp	Arg	Phe	Val	Ala	Ile	Cys	His	Pro	Leu	Arg
	130					135					140				
His	Ala	Ser	Val	Leu	Thr	Gly	Cys	Thr	Val	Ala	Lys	Ile	Gly	Leu	Ser
145					150					155					160
Ala	Leu	Thr	Arg	Gly	Phe	Val	Phe	Phe	Phe	Pro	Leu	Pro	Phe	Ile	Leu
				165					170					175	
Lys	Trp	Leu	Ser	Tyr	Cys	Gln	Thr	His	Thr	Val	Thr	His	Ser	Phe	Cys
			180					185					190		
Leu	His	Gln	Asp	Ile	Met	Lys	Leu	Ser	Cys	Thr	Asp	Thr	Arg	Val	Asn
		195					200					205			
Val	Val	Tyr	Gly	Leu	Phe	Ile	Ile	Leu	Ser	Val	Met	Gly	Val	Asp	Ser
	210					215					220				
Leu	Phe	Ile	Gly	Phe	Ser	Tyr	Ile	Leu	Ile	Leu	Trp	Ala	Val	Leu	Glu
225					230					235					240

Met	Tyr	Val	Val	Ala	Met	Phe	Gly	Asn	Cys	Ile	Val	Val	Phe	Ile	Val	35	40	45
Arg	Thr	Glu	Arg	Ser	Leu	His	Ala	Pro	Met	Tyr	Leu	Phe	Leu	Cys	Met	50	55	60
Leu	Ala	Ala	Ile	Asp	Leu	Ala	Leu	Ser	Thr	Ser	Thr	Met	Pro	Lys	Ile	65	70	75
Leu	Ala	Leu	Phe	Trp	Phe	Asp	Ser	Arg	Glu	Ile	Ser	Phe	Glu	Ala	Cys	85	90	95
Leu	Thr	Gln	Met	Phe	Phe	Ile	His	Ala	Leu	Ser	Ala	Ile	Glu	Ser	Thr	100	105	110
Ile	Leu	Leu	Ala	Met	Ala	Phe	Asp	Arg	Tyr	Val	Ala	Ile	Cys	His	Pro	115	120	125
Leu	Arg	His	Ala	Ala	Val	Leu	Asn	Asn	Thr	Val	Thr	Ala	Gln	Ile	Gly	130	135	140
Ile	Val	Ala	Val	Val	Arg	Gly	Ser	Leu	Phe	Phe	Phe	Pro	Leu	Pro	Leu	145	150	155
Leu	Ile	Lys	Arg	Leu	Ala	Phe	Cys	His	Ser	Asn	Val	Leu	Ser	His	Ser	165	170	175
Tyr	Cys	Val	His	Gln	Asp	Val	Met	Lys	Leu	Ala	Tyr	Ala	Asp	Thr	Leu	180	185	190
Pro	Asn	Val	Val	Tyr	Gly	Leu	Thr	Ala	Ile	Leu	Leu	Val	Met	Gly	Val	195	200	205
Asp	Val	Met	Phe	Ile	Ser	Leu	Ser	Tyr	Phe	Leu	Ile	Ile	Arg	Thr	Val	210	215	220
Leu	Gln	Leu	Pro	Ser	Lys	Ser	Glu	Arg	Ala	Lys	Ala	Phe	Gly	Thr	Cys	225	230	235
Val	Ser	His	Ile	Gly	Val	Val	Leu	Ala	Phe	Tyr	Val	Pro	Leu	Ile	Gly	245	250	255
Leu	Ser	Val	Val	His	Arg	Phe	Gly	Asn	Ser	Leu	His	Pro	Ile	Val	Arg	260	265	270
Val	Val	Met	Gly	Asp	Ile	Tyr	Leu	Leu	Leu	Pro	Pro	Val	Ile	Asn	Pro	275	280	285
Ile	Ile	Tyr	Gly	Ala	Lys	Thr	Lys	Gln	Ile	Arg	Thr	Arg	Val	Leu	Ala	290	295	300
Met	Phe	Lys	Ile	Ser	Cys	Asp	Lys	Asp	Leu	Gln	Ala	Val	Gly	Gly	Lys	305	310	315
																		320

<210> 84
 <211> 963
 <212> DNA
 <213> Homo sapiens

<400> 84
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 aactgcatcg tggctcttcat cgtaaggacg gaacgcagcc tgcacgctcc gatgtacctc 180
 tttctctgca tgcttgacgc cattgacctg gccttatcca catccaccat gcctaagatc 240
 cttgcccttt tctggtttga ttcccagag attagctttg aggcctgtct taccagatg 300
 ttctttattc atgccctctc agccattgaa tccaccatcc tgctggccat ggcctttgac 360
 cgttatgtgg ccatctgcca cccactgcgc catgctgcag tgctcaacaa tacagtaaca 420
 gccagattg gcatcgtggc tgtggtccgc ggatccctct tttttttccc actgcctctg 480
 ctgatcaagc ggctggcctt ctgccactcc aatgtcctct cgcactccta ttgtgtccac 540
 caggatgtaa tgaagtggc ctatgcagac actttgccca atgtggtata tggctcttact 600
 gccattctgc tggatcatggg cgtggacgta atgttcatct ccttgctcta ttttctgata 660
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 gtgtcacaca ttggtgtggt actgccttc tatgtgccac ttattggcct ctcagtggta 780
 caccgctttg gaaacagcct tcatcccat gtgcgtgttg tcatgggtga catctacctg 840
 ctgctgcctc ctgtcatcaa tcccatcatc tatggtgccca aaaccaaaca gatcagaaca 900
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 tga 963

<210> 85
 <211> 314
 <212> PRT
 <213> Homo sapiens

<400> 85
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 Val Gly Ile Pro Gly Leu Glu His Leu His Ala Trp Ile Ser Ile Pro
 20 25 30
 Phe Cys Phe Ala Tyr Thr Leu Ala Leu Leu Gly Asn Cys Thr Leu Leu
 35 40 45
 Phe Ile Ile Gln Ala Asp Ala Ala Leu His Glu Pro Met Tyr Leu Phe
 50 55 60
 Leu Ala Met Leu Ala Thr Ile Asp Leu Val Leu Ser Ser Thr Thr Leu
 65 70 75 80
 Pro Lys Met Leu Ala Ile Phe Trp Phe Arg Asp Gln Glu Ile Asn Phe
 85 90 95
 Phe Ala Cys Leu Val Gln Met Phe Phe Leu His Ser Phe Ser Ile Met
 100 105 110
 Glu Ser Ala Val Leu Leu Ala Met Ala Phe Asp Arg Tyr Val Ala Ile
 115 120 125
 Cys Lys Pro Leu His Tyr Thr Thr Val Leu Thr Gly Ser Leu Ile Thr

130		135		140
Lys Ile Gly Met Ala Ala Val Ala Arg Ala Val Thr Leu Met Thr Pro				
145		150		155 160
Leu Pro Phe Leu Leu Arg Arg Phe His Tyr Cys Arg Gly Pro Val Ile				
		165		170 175
Ala His Cys Tyr Cys Glu His Met Ala Val Val Arg Leu Ala Cys Gly				
		180		185 190
Asp Thr Ser Phe Asn Asn Ile Tyr Gly Ile Ala Val Ala Met Phe Ser				
		195		200 205
Val Val Leu Asp Leu Leu Phe Val Ile Leu Ser Tyr Val Phe Ile Leu				
		210		215 220
Gln Ala Val Leu Gln Leu Ala Ser Gln Glu Ala Arg Tyr Lys Ala Phe				
		225		230 235 240
Gly Thr Cys Val Ser His Ile Gly Ala Ile Leu Ser Thr Tyr Thr Pro				
		245		250 255
Val Val Ile Ser Ser Val Met His Arg Val Ala Arg His Ala Ala Pro				
		260		265 270
Arg Val His Ile Leu Leu Ala Ile Phe Tyr Leu Leu Phe Pro Pro Met				
		275		280 285
Val Asn Pro Ile Ile Tyr Gly Val Lys Thr Lys Gln Ile Arg Glu Tyr				
		290		295 300
Val Leu Ser Leu Phe Gln Arg Lys Asn Met				
305		310		

<210> 86

<211> 1400

<212> DNA

<213> Homo sapiens

<400> 86

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gaacccatgt	acctctttct	ggccatggtg	gcaaccattg	acttggttct	ttcttctaca	360
acgctgcca	aaatgcttgc	catattctgg	ttcagggatc	aggagatcaa	cttctttgcc	420
tgtctggtcc	agatgttctt	ccttcaactcc	ttctccatca	tggagtcagc	agtgtctgtg	480
gccatggcct	ttgaccgcta	tgtggccatc	tgcaagccat	tgcactacac	gacggctctg	540
actgggtccc	tcatcaccaa	gattggcatg	gctgctgtgg	cccgggctgt	gacactaatg	600
actccactcc	ccttcctgct	cagacgcttc	cactactgcc	gaggcccagt	gattgcccac	660
tgtactgtg	aacacatggc	tgtggtaagg	ctggcggtgtg	gggacactag	cttcaacaat	720
atctatggca	ttgctgtggc	catgtttagt	gtgggtgttg	acctgtctct	tgttatcctg	780
tcttatgtct	tcatccttca	ggcagttctc	cagcttgcc	ctcaggaggc	ccgctacaaa	840
gcatttggga	catgtgtgtc	tcacataggt	gccatcctgt	ccacctacac	tccagtagtc	900

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gctattttct atctcctttt cccacccatg gtcaatccta tcatatatgg agtcaagacc 1020
aagcagattc gtgagtatgt gctcagtcta ttccagagaa agaacatgta gatggatagt 1080
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<210> 87
<211> 384
<212> PRT
<213> Homo sapiens

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<220>
<221> MOD_RES
<222> (68)
<223> Variable amino acid

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<400> 87
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Ile Arg Glu Asp Asp Asp Ser Asp Phe Lys Asn Phe Ile Gly Gln Ile
      20             25             30

Gln Gly Leu Ser Gly Asn Pro His Ser Thr Thr Ser Arg Met Tyr Phe
      35             40             45

Leu Cys Phe Cys Thr Ser Leu Leu Gly Phe Lys Val His Trp Val Ser
      50             55             60

Arg Leu Ile Xaa Lys Leu Tyr Met Ala Ser Pro Asn Asn Asp Ser Thr
      65             70             75             80

Ala Pro Val Ser Glu Phe Leu Leu Ile Cys Phe Pro Asn Phe Gln Ser
      85             90             95

Trp Gln His Trp Leu Ser Leu Pro Leu Ser Leu Leu Phe Leu Leu Ala
      100            105            110

Met Gly Ala Asn Thr Thr Leu Leu Ile Thr Ile Gln Leu Glu Ala Ser
      115            120            125

Leu His Gln Pro Leu Tyr Tyr Leu Leu Ser Leu Leu Ser Leu Leu Asp
      130            135            140

Ile Val Leu Cys Leu Thr Val Ile Pro Lys Val Leu Ala Ile Phe Trp
      145            150            155            160

Phe Asp Leu Arg Ser Ile Ser Phe Pro Ala Cys Phe Leu Gln Met Phe
      165            170            175

Ile Met Asn Ser Phe Leu Thr Met Glu Ser Cys Thr Phe Met Val Met
      180            185            190

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Ala Tyr Asp Arg Tyr Val Ala Ile Cys His Pro Leu Arg Tyr Pro Ser
195 200 205

Ile Ile Thr Asp Gln Phe Val Ala Arg Ala Val Val Phe Val Ile Ala
210 215 220

Arg Asn Ala Phe Val Ser Leu Pro Val Pro Met Leu Ser Ala Arg Leu
225 230 235 240

Arg Tyr Cys Ala Gly Asn Ile Ile Lys Asn Cys Ile Cys Ser Asn Leu
245 250 255

Ser Val Ser Lys Leu Ser Cys Asp Asp Ile Thr Phe Asn Gln Leu Tyr
260 265 270

Gln Phe Val Ala Gly Trp Thr Leu Leu Gly Ser Asp Leu Ile Leu Ile
275 280 285

Val Ile Ser Tyr Ser Phe Ile Leu Lys Val Val Leu Arg Ile Lys Ala
290 295 300

Glu Gly Ala Val Ala Lys Ala Leu Ser Thr Cys Gly Ser His Phe Ile
305 310 315 320

Leu Ile Leu Phe Phe Ser Thr Val Leu Leu Val Leu Val Ile Thr Asn
325 330 335

Leu Ala Arg Lys Arg Ile Pro Pro Asp Val Pro Ile Leu Leu Asn Ile
340 345 350

Leu His His Leu Ile Pro Pro Ala Leu Asn Pro Ile Val Tyr Gly Val
355 360 365

Arg Thr Lys Glu Ile Lys Gln Gly Ile Gln Asn Leu Leu Lys Arg Leu
370 375 380

<210> 88
<211> 1155
<212> DNA
<213> Homo sapiens

<220>
<221> modified_base
<222> (203)
<223> A, T, C or G

<400> 88
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gatgacagtg attttaaaaa ctttatttga cagatacagg gcctcagtg aaaccacac 120
tctactacgt ctagaatgta ctttttatgt ttctgtactt ctctactagg ttttaaggta 180
cactgggtct ccagattgat cangaaactt tacatggcat ctccaacaa tgactccact 240
gccccagtc ctgaattcct cctcatctgc ttccccaact tccagagctg gcagcactgg 300

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ttgtctctgc ccctcagcct tctcttctct ctggccatgg gagctaacac caccctcctg 360
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tccctgctgg acatcgtgct ctgcctcacc gtcaccccca aggtcctggc catcttctgg 480
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tttttgacca tggagtcttg cacgttcatg gtcatggcct atgaccgtta tgtggccatc 600
tgccatccat tgagataccc gtctatcatc actgaccagt ttgtggctag ggccgtggtc 660
tttgttatag cccggaatgc ctttgtttct cttcctgttc ccatgctttc tgccagggtc 720
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ttgggctctg atcttatact tattgttatc tcctattctt ttatattgaa agttgtgctt 900
aggatcaagg ccgagggtgc tgtggccaag gccttgagca cgtgtggttc ccacttcac 960
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ctgaagaggt tgtaa 1155

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<210> 89

<211> 314

<212> PRT

<213> Homo sapiens

<400> 89

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Met Ser Ala Ser Asn Ile Thr Leu Thr His Pro Thr Ala Phe Leu Leu
  1             5             10             15

Val Gly Ile Pro Gly Leu Glu His Leu His Ile Trp Ile Ser Ile Pro
      20             25             30

Phe Cys Leu Ala Tyr Thr Leu Ala Leu Leu Gly Asn Cys Thr Leu Leu
      35             40             45

Leu Ile Ile Gln Ala Asp Ala Ala Leu His Glu Pro Met Tyr Leu Phe
      50             55             60

Leu Ala Met Leu Ala Ala Ile Asp Leu Val Leu Ser Ser Ser Ala Leu
      65             70             75             80

Pro Lys Met Leu Ala Ile Phe Trp Phe Arg Asp Arg Glu Ile Asn Phe
      85             90             95

Phe Ala Cys Leu Ala Gln Met Phe Phe Leu His Ser Phe Ser Ile Met
      100            105            110

Glu Ser Ala Val Leu Leu Ala Met Ala Phe Asp Arg Tyr Val Ala Ile
      115            120            125

Cys Lys Pro Leu His Tyr Thr Lys Val Leu Thr Gly Ser Leu Ile Thr
      130            135            140

Lys Ile Gly Met Ala Ala Val Ala Arg Ala Val Thr Leu Met Thr Pro
      145            150            155            160

Leu Pro Phe Leu Leu Arg Cys Phe His Tyr Cys Arg Gly Pro Val Ile
      165            170            175

Ala His Cys Tyr Cys Glu His Met Ala Val Val Arg Leu Ala Cys Gly

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Met	Met	Val	Asp	Pro	Asn	Gly	Asn	Glu	Ser	Ser	Ala	Thr	Tyr	Phe	Ile	
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Leu	Ile	Gly	Leu	Pro	Gly	Leu	Glu	Glu	Ala	Gln	Phe	Trp	Leu	Ala	Phe	
			20					25					30			
Pro	Leu	Cys	Ser	Leu	Tyr	Leu	Ile	Ala	Val	Leu	Gly	Asn	Leu	Thr	Ile	
		35					40					45				
Ile	Tyr	Ile	Val	Arg	Thr	Glu	His	Ser	Leu	His	Glu	Pro	Met	Tyr	Ile	
	50					55					60					
Phe	Leu	Cys	Met	Leu	Ser	Gly	Ile	Asp	Ile	Leu	Ile	Ser	Thr	Ser	Ser	
65					70					75					80	
Met	Pro	Lys	Met	Leu	Ala	Ile	Phe	Trp	Phe	Asn	Ser	Thr	Thr	Ile	Gln	
				85					90					95		
Phe	Asp	Ala	Cys	Leu	Leu	Gln	Met	Phe	Ala	Ile	His	Ser	Leu	Ser	Gly	
		100						105					110			
Met	Glu	Ser	Thr	Val	Leu	Leu	Ala	Met	Ala	Phe	Asp	Arg	Tyr	Val	Ala	
	115						120					125				
Ile	Cys	His	Pro	Leu	Arg	His	Ala	Thr	Val	Leu	Thr	Leu	Pro	Arg	Val	
	130					135					140					
Thr	Lys	Ile	Gly	Val	Ala	Ala	Val	Val	Arg	Gly	Ala	Ala	Leu	Met	Ala	
145					150					155					160	
Pro	Leu	Pro	Val	Phe	Ile	Lys	Gln	Leu	Pro	Phe	Cys	Arg	Ser	Asn	Ile	
				165					170					175		
Leu	Ser	His	Ser	Tyr	Cys	Leu	His	Gln	Asp	Val	Met	Lys	Leu	Ala	Cys	
			180					185					190			
Asp	Asp	Ile	Arg	Val	Asn	Val	Val	Tyr	Gly	Leu	Ile	Val	Ile	Ile	Ser	
	195						200					205				
Ala	Ile	Gly	Leu	Asp	Ser	Leu	Leu	Ile	Ser	Phe	Ser	Tyr	Leu	Leu	Ile	
	210					215					220					
Leu	Lys	Thr	Val	Leu	Gly	Leu	Thr	Arg	Glu	Ala	Gln	Ala	Lys	Ala	Phe	
225					230					235					240	
Gly	Thr	Cys	Val	Ser	His	Val	Cys	Ala	Val	Phe	Ile	Phe	Tyr	Val	Pro	
				245					250					255		
Phe	Ile	Gly	Leu	Ser	Met	Val	His	Arg	Phe	Ser	Lys	Arg	Arg	Asp	Ser	
			260					265					270			
Pro	Leu	Pro	Val	Ile	Leu	Ala	Asn	Ile	Tyr	Leu	Leu	Val	Pro	Pro	Val	
		275					280					285				
Leu	Asn	Pro	Ile	Val	Tyr	Gly	Val	Lys	Thr	Lys	Glu	Ile	Arg	Gln	Arg	
	290					295					300					

Ile Leu Arg Leu Phe His Val Ala Thr His Ala Ser Glu Pro
 305 310 315

<210> 92
 <211> 957
 <212> DNA
 <213> Homo sapiens

<400> 92
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 gctgtgctag gtaacttgac aatcatctac attgtgcgga ctgagcacag cctgcatgag 180
 cccatgtata tatttctttg catgctttca ggcattgaca tcctcatctc cacctcatcc 240
 atgccccaaa tgctggccat cttctgggtc aattccacta ccatccagtt tgatgcttgt 300
 ctgctacaga tgtttgccat ccactcctta tctggcatgg aatccacagt gctgctggcc 360
 atggcctttg accgctatgt ggccatctgt caccactgc gccatgccac agtacttacg 420
 ttgcctcgtg tcacaaaaat tgggtgtggct gctgtgggtg ggggggctgc actgatggca 480
 ccccttctctg tcttcatcaa gcagctgccc ttctgcccgt ccaatatcct ttcccatcc 540
 tactgcctac accaagatgt catgaagctg gcctgtgatg atatccgggt caatgtcgtc 600
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 tatctgctta ttcttaagac tgtgttgggc ttgacacgtg aagcccaggc caaggcattt 720
 ggcacttgcg tctctcatgt gtgtgctgtg ttcatattct atgtaccttt cattggattg 780
 tccatgggtgc atcgcttttag caagcggcgt gactctccgc tgcccgtcat cttggccaat 840
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<210> 93
 <211> 317
 <212> PRT
 <213> Homo sapiens

<400> 93
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 Thr Gly Ile Pro Gly Leu Glu Ser Leu His Val Trp Leu Ser Ile Pro
 20 25 30
 Phe Gly Ser Met Tyr Leu Val Ala Val Val Gly Asn Val Thr Ile Leu
 35 40 45
 Ala Val Val Lys Ile Glu Arg Ser Leu His Gln Pro Met Tyr Phe Phe
 50 55 60
 Leu Cys Met Leu Ala Ala Ile Asp Leu Val Leu Ser Thr Ser Thr Ile
 65 70 75 80
 Pro Lys Leu Leu Gly Ile Phe Trp Phe Gly Ala Cys Asp Ile Gly Leu
 85 90 95
 Asp Ala Cys Leu Gly Gln Met Phe Leu Ile His Cys Phe Ala Thr Val
 100 105 110
 Glu Ser Gly Ile Phe Leu Ala Met Ala Phe Asp Arg Tyr Val Ala Ile
 115 120 125

Cys Asn Pro Leu Arg His Ser Met Val Leu Thr Tyr Thr Val Val Gly
 130 135 140
 Arg Leu Gly Leu Val Ser Leu Leu Arg Gly Val Leu Tyr Ile Gly Pro
 145 150 155 160
 Leu Pro Leu Met Ile Arg Leu Arg Leu Pro Leu Tyr Lys Thr His Val
 165 170 175
 Ile Ser His Ser Tyr Cys Glu His Met Ala Val Val Ala Leu Thr Cys
 180 185 190
 Gly Asp Ser Arg Val Asn Asn Val Tyr Gly Leu Ser Ile Gly Phe Leu
 195 200 205
 Val Leu Ile Leu Asp Ser Val Ala Ile Ala Ala Ser Tyr Val Met Ile
 210 215 220
 Phe Arg Ala Val Met Gly Leu Ala Thr Pro Glu Ala Arg Leu Lys Thr
 225 230 235 240
 Leu Gly Thr Cys Ala Ser His Leu Cys Ala Ile Leu Ile Phe Tyr Val
 245 250 255
 Pro Ile Ala Val Ser Ser Leu Ile His Arg Phe Gly Gln Cys Val Pro
 260 265 270
 Pro Pro Val His Thr Leu Leu Ala Asn Phe Tyr Leu Leu Ile Pro Pro
 275 280 285
 Ile Leu Asn Pro Ile Val Tyr Ala Val Arg Thr Lys Gln Ile Arg Glu
 290 295 300
 Ser Leu Leu Gln Ile Pro Arg Ile Glu Met Lys Ile Arg
 305 310 315

<210> 94
 <211> 954
 <212> DNA
 <213> Homo sapiens

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 gtgggtgggga atgtgacat cctggctgtg gtaaagatag aacgcagcct gcaccagccc 180
 atgtactttt tcttgtgcat gttggctgcc attgacctgg ttctgtctac ttccactata 240
 cccaaacttc tgggaatctt ctggttcggt gcttgtgaca ttggcctgga cgctgcttg 300
 ggccaaatgt tccttatcca ctgctttgcc actgttgagt caggcatctt ccttgccatg 360
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 acagtgggtg gtcgtttggg gcttgtttct ctctccggg gtgttctcta cattggacct 480
 ctgcctctga tgatccgcct gcggtgccc ctttataaaa cccatgttat ctcccactcc 540
 tactgtgagc acatggctgt agttgccttg acatgtggcg acagcagggt caataatgtc 600
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 tatgtgatga ttttcagggc cgtgatggg ttagccactc ctgaggctag gcttaaaacc 720
 ctggggacat gcgcttctca cctctgtgcc atcctgatct tttatgttcc cattgctgtt 780

tcttcctga ttcaccgatt tggtcagtgt gtgcctctc cagtccacac tctgctggcc 840
aacttctatc tcttcattcc tccaatcctc aatcccattg tctatgctgt tcgcaccaag 900
cagatccgag agagccttct ccaaatacca aggatagaaa tgaagattag atga 954

<210> 95
<211> 319
<212> PRT
<213> Homo sapiens

<400> 95
Met Asn Leu Asp Ser Phe Phe Ser Phe Leu Leu Lys Ser Leu Ile Met
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Ala Leu Ser Asn Ser Ser Trp Arg Leu Pro Gln Pro Ser Phe Phe Leu
20 25 30
Val Gly Ile Pro Gly Leu Glu Glu Ser Gln His Trp Ile Ala Leu Pro
35 40 45
Leu Gly Ile Leu Tyr Leu Leu Ala Leu Val Gly Asn Val Thr Ile Leu
50 55 60
Phe Ile Ile Trp Met Asp Pro Ser Leu His Gln Ser Met Tyr Leu Phe
65 70 75 80
Leu Ser Met Leu Ala Ala Ile Asp Leu Val Val Ala Ser Ser Thr Ala
85 90 95
Pro Lys Ala Leu Ala Val Leu Leu Val Arg Ala Gln Glu Ile Gly Tyr
100 105 110
Thr Val Cys Leu Ile Gln Met Phe Phe Thr His Ala Phe Ser Ser Met
115 120 125
Glu Ser Gly Val Leu Val Ala Met Ala Leu Asp Arg Tyr Val Ala Ile
130 135 140
Cys His Pro Leu His His Ser Thr Ile Leu His Pro Gly Val Ile Gly
145 150 155 160
His Ile Gly Met Val Val Leu Val Arg Gly Leu Leu Leu Leu Ile Pro
165 170 175
Phe Leu Ile Leu Leu Arg Lys Leu Ile Phe Cys Gln Ala Thr Ile Ile
180 185 190
Gly His Ala Tyr Cys Glu His Met Ala Val Val Lys Leu Ala Cys Ser
195 200 205
Glu Thr Thr Val Asn Arg Ala Tyr Gly Leu Thr Val Ala Leu Leu Val
210 215 220
Val Gly Leu Asp Val Leu Ala Ile Gly Val Ser Tyr Ala His Ile Leu
225 230 235 240
Gln Ala Val Leu Lys Val Pro Gly Asn Glu Ala Arg Leu Lys Ala Phe

Tyr Ile Ile Ala Leu Leu Gly Asn Thr Ile Ile Val Thr Ala Ile Trp
65 70 75 80
Met Asp Ser Thr Arg His Glu Pro Met Tyr Cys Phe Leu Cys Val Leu
85 90 95
Ala Ala Val Asp Ile Val Met Ala Ser Ser Val Val Pro Lys Met Val
100 105 110
Ser Ile Phe Cys Ser Gly Asp Ser Ser Ile Ser Phe Ser Ala Cys Phe
115 120 125
Thr Gln Met Phe Phe Val His Leu Ala Thr Ala Val Glu Thr Gly Leu
130 135 140
Leu Leu Thr Met Ala Phe Asp Arg Tyr Val Ala Ile Cys Lys Pro Leu
145 150 155 160
His Tyr Lys Arg Ile Leu Thr Pro Gln Val Met Leu Gly Met Ser Met
165 170 175
Ala Ile Thr Ile Arg Ala Ile Ile Ala Ile Thr Pro Leu Ser Trp Met
180 185 190
Val Ser His Leu Pro Phe Cys Gly Ser Asn Val Val Val His Ser Tyr
195 200 205
Cys Glu His Ile Ala Leu Ala Arg Leu Ala Cys Ala Asp Pro Val Pro
210 215 220
Ser Ser Leu Tyr Ser Leu Ile Gly Ser Ser Leu Met Val Gly Ser Asp
225 230 235 240
Val Ala Phe Ile Ala Ala Ser Tyr Ile Leu Ile Leu Lys Ala Val Phe
245 250 255
Gly Leu Ser Ser Lys Thr Ala Gln Leu Lys Ala Leu Ser Thr Cys Gly
260 265 270
Ser His Val Gly Val Met Ala Leu Tyr Tyr Leu Pro Gly Met Ala Ser
275 280 285
Ile Tyr Ala Ala Trp Leu Gly Gln Asp Val Val Pro Leu His Thr Gln
290 295 300
Val Leu Leu Ala Asp Leu Tyr Val Ile Ile Pro Ala Thr Leu Asn Pro
305 310 315 320
Ile Ile Tyr Gly Met Arg Thr Lys Gln Leu Arg Glu Arg Ile Trp Ser
325 330 335
Tyr Leu Met His Val Leu Phe Asp His Ser Asn Leu Gly Ser
340 345 350

<210> 98
<211> 1053

<212> DNA

<213> Homo sapiens

<400> 98

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ctgagtgcca tgtacatcat agccctgtta ggaaacacca tcatcgtgac tgcaatctgg 240
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tcaatcagct ttagtgcttg ttctactcag atgttttttg tccacttagc cacagctgtg 420
gagacggggc tgctgctgac catggctttt gaccgctatg tagccatctg caagcctcta 480
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agagctatca tagccataac tccactgagt tggatgggtga gtcactacc tttctgtggc 600
tccaatgtgg ttgtccactc ctactgtgag cacatagctt tggccagggt agcatgtgct 660
gaccccgctg ccagcagctc ctacagctctg attggttcct ctcttatggg gggctctgat 720
gtggccttca ttgctgcctc ctatatctta attctcaagg cagtatttgg tctctcctca 780
aagactgctc agttgaaagc attaagcaca tgtggctccc atgtgggggt tatggctttg 840
tactatctac ctgggatggc atccatctat gcggcctggg tggggcagga tgtagtggc 900
ttgcacaccc aagtctgct agctgacctg tacgtgatca tcccagccac cttaaatccc 960
atcatctatg gcatgaggac caaacaactg cgggagagaa tatggagtta tctgatgcat 1020
gtcctctttg accattccaa cctgggttca tga 1053
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<210> 99

<211> 324

<212> PRT

<213> Homo sapiens

<400> 99

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Met Leu Gly Pro Ala Tyr Asn His Thr Met Glu Thr Pro Ala Ser Phe
  1              5              10              15

Leu Leu Val Gly Ile Pro Gly Leu Gln Ser Ser His Leu Trp Leu Ala
  20              25              30

Ile Ser Leu Ser Ala Met Tyr Ile Thr Ala Leu Leu Gly Asn Thr Leu
  35              40              45

Ile Val Thr Ala Ile Trp Met Asp Ser Thr Arg His Glu Pro Met Tyr
  50              55              60

Cys Phe Leu Cys Val Leu Ala Ala Val Asp Ile Val Met Ala Ser Ser
  65              70              75              80

Val Val Pro Lys Met Val Ser Ile Phe Cys Ser Gly Asp Ser Ser Ile
  85              90              95

Ser Phe Ser Ala Cys Phe Thr Gln Met Phe Phe Val His Leu Ala Thr
  100             105             110

Ala Val Glu Thr Gly Leu Leu Leu Thr Met Ala Phe Asp Arg Tyr Val
  115             120             125

Ala Ile Cys Lys Pro Leu His Tyr Lys Arg Ile Leu Thr Pro Gln Val
  130             135             140
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Met Leu Gly Met Ser Met Ala Val Thr Ile Arg Ala Val Thr Phe Met
 145 150 155 160
 Thr Pro Leu Ser Trp Met Met Asn His Leu Pro Phe Cys Gly Ser Asn
 165 170 175
 Val Val Val His Ser Tyr Cys Lys His Ile Ala Leu Ala Arg Leu Ala
 180 185 190
 Cys Ala Asp Pro Val Pro Ser Ser Leu Tyr Ser Leu Ile Gly Ser Ser
 195 200 205
 Leu Met Val Gly Ser Asp Val Ala Phe Ile Ala Ala Ser Tyr Ile Leu
 210 215 220
 Ile Leu Arg Ala Val Phe Asp Leu Ser Ser Lys Thr Ala Gln Leu Lys
 225 230 235 240
 Ala Leu Ser Thr Cys Gly Ser His Val Gly Val Met Ala Leu Tyr Tyr
 245 250 255
 Leu Pro Gly Met Ala Ser Ile Tyr Ala Ala Trp Leu Gly Gln Asp Ile
 260 265 270
 Val Pro Leu His Thr Gln Val Leu Leu Ala Asp Leu Tyr Val Ile Ile
 275 280 285
 Pro Ala Thr Leu Asn Pro Ile Ile Tyr Gly Met Arg Thr Lys Gln Leu
 290 295 300
 Leu Glu Gly Ile Trp Ser Tyr Leu Met His Phe Leu Phe Asp His Ser
 305 310 315 320

Asn Leu Gly Ser

<210> 100
 <211> 975
 <212> DNA
 <213> Homo sapiens

<400> 100
 atgctggggtc cagcttacaa ccacacaatg gaaacccctg cctccttctt ccttggtgggt 60
 atcccaggac tgcaatcttc acatcttttg ctggctatct cactgagtgc catgtacatc 120
 acagccctgt taggaaacac cctcatcgtg actgcaatct ggatggattc cactcggcat 180
 gagcccatgt attgctttct gtgtgttctg gctgctgtgg acattgttat ggcctcctcc 240
 gtggtagcca agatggtgag catcttctgc tcgggagaca gctccatcag ctttagtgct 300
 tgtttcactc agatgttttt tgtccactta gccacagctg tggagacggg gctgctgctg 360
 accatggctt ttgaccgcta tgtagccatc tgcaagcctc tacactacaa gagaattctc 420
 acgcctcaag tgatgctggg aatgagtatg gccgtcacca tcagagctgt cacattcatg 480
 actccactga gttggatgat gaatcatcta ctttctgtg gctccaatgt ggttgtccac 540
 tcctactgta agcacatagc tttggccagg ttagcatgtg ctgaccccggt gccagcagt 600
 ctctacagtc tgattgggtc ctctcttatg gtgggctctg atgtggcctt cattgctgcc 660
 tcctatatct taattctcag ggcagtattt gatctctcct caaagactgc tcagttgaaa 720
 gcattaagca catgtggctc ccatgtgggg gttatggctt tgtactatct acctgggatg 780
 gcatccatct atgcggcctg gttggggcag gatatatgtgc ccttgccacac ccaagtgtct 840

ctagctgacc tgtacgtgat catcccagcc acttttaaadc ccatcatcta tggcatgagg 900
 accaaacaat tgctggaggg aatatggagt tatctgatgc acttcctctt tgaccactcc 960
 aacctgggtt catga 975

<210> 101
 <211> 318
 <212> PRT
 <213> Homo sapiens

<400> 101
 Met Ser Asp Ser Asn Leu Ser Asp Asn His Leu Pro Asp Thr Phe Phe
 1 5 10 15
 Leu Thr Gly Ile Pro Gly Leu Glu Ala Ala His Phe Trp Ile Ala Ile
 20 25 30
 Pro Phe Cys Ala Met Tyr Leu Val Ala Leu Val Gly Asn Ala Ala Leu
 35 40 45
 Ile Leu Val Ile Ala Met Asp Asn Ala Leu His Ala Pro Met Tyr Leu
 50 55 60
 Phe Leu Cys Leu Leu Ser Leu Thr Asp Leu Ala Leu Ser Ser Thr Thr
 65 70 75 80
 Val Pro Lys Met Leu Ala Ile Leu Trp Leu His Ala Gly Glu Ile Ser
 85 90 95
 Phe Gly Gly Cys Leu Ala Gln Met Phe Cys Val His Ser Ile Tyr Ala
 100 105 110
 Leu Glu Ser Ser Ile Leu Leu Ala Met Ala Phe Asp Arg Tyr Val Ala
 115 120 125
 Ile Cys Asn Pro Leu Arg Tyr Thr Thr Ile Leu Asn His Ala Val Ile
 130 135 140
 Gly Arg Ile Gly Phe Val Gly Leu Phe Arg Ser Val Ala Ile Val Ser
 145 150 155 160
 Pro Phe Ile Phe Leu Leu Arg Arg Leu Pro Tyr Cys Gly His Arg Val
 165 170 175
 Met Thr His Thr Tyr Cys Glu His Met Gly Ile Ala Arg Leu Ala Cys
 180 185 190
 Ala Asn Ile Thr Val Asn Ile Val Tyr Gly Leu Thr Val Ala Leu Leu
 195 200 205
 Ala Met Gly Leu Asp Ser Ile Leu Ile Ala Ile Ser Tyr Gly Phe Ile
 210 215 220
 Leu His Ala Val Phe His Leu Pro Ser His Asp Ala Gln His Lys Ala
 225 230 235 240
 Leu Ser Thr Cys Gly Ser His Ile Gly Ile Ile Leu Val Phe Tyr Ile

Gln Leu Ile His Gln Pro Met Tyr Phe Phe Leu Asn Tyr Leu Ser Leu
 65 70 75 80
 Ser Asp Leu Cys Tyr Thr Ser Thr Val Thr Pro Lys Leu Met Val Asp
 85 90 95
 Leu Leu Ala Glu Arg Lys Thr Ile Ser Tyr Asn Asn Cys Met Ile Gln
 100 105 110
 Leu Phe Thr Thr His Phe Phe Gly Gly Ile Glu Ile Phe Ile Leu Thr
 115 120 125
 Gly Met Ala Tyr Asp Arg Tyr Val Ala Ile Cys Lys Pro Leu His Tyr
 130 135 140
 Thr Ile Ile Met Ser Arg Gln Lys Cys Asn Thr Ile Ile Ile Val Cys
 145 150 155 160
 Cys Thr Gly Gly Phe Ile His Ser Ala Ser Gln Phe Leu Leu Thr Ile
 165 170 175
 Phe Val Pro Phe Cys Gly Pro Asn Glu Ile Asp His Tyr Phe Cys Asp
 180 185 190
 Val Tyr Pro Leu Leu Lys Leu Ala Cys Ser Asn Ile His Met Ile Gly
 195 200 205
 Leu Leu Val Ile Ala Asn Ser Gly Leu Ile Ala Leu Val Thr Phe Val
 210 215 220
 Val Leu Leu Leu Ser Tyr Val Phe Ile Leu Tyr Thr Ile Arg Ala Tyr
 225 230 235 240
 Ser Ala Glu Arg Arg Ser Lys Ala Leu Ala Thr Cys Ser Ser His Val
 245 250 255
 Ile Val Val Val Leu Phe Phe Ala Pro Ala Leu Phe Ile Tyr Ile Arg
 260 265 270
 Pro Val Thr Thr Phe Ser Glu Asp Lys Val Phe Ala Leu Phe Tyr Thr
 275 280 285
 Ile Ile Ala Pro Met Phe Asn Pro Leu Ile Tyr Thr Leu Arg Asn Thr
 290 295 300
 Glu Met Lys Asn Ala Met Arg Lys Val Trp Cys Cys Gln Ile Leu Leu
 305 310 315 320
 Lys Arg Asn Gln Leu Phe
 325

<210> 104
 <211> 981
 <212> DNA
 <213> Homo sapiens

<400> 104
atgtcatttc aggtgactta tatgttctat ctacactgga ccatggaaaa aagcaataat 60
agcactttgt ttattctctt ggggttttcc caaaataaga acattgaagt cctctgcttt 120
gtattatttt tgttttgcta cattgctatt tggatgggaa acttactcat aatgatttct 180
atcacgtgca cccagctcat tcaccaaccc atgtatttct tcctcaatta cctctcactc 240
tccgaccttt gctacacatc cacagtgacc cccaaattaa tggttgactt actggcagaa 300
agaaagacca tttcctataa taactgtatg atacaactct ttaccacca tttttttgga 360
ggcatagaga tcttcattct cacagggatg gcctatgacc gctatgtggc catttgcaag 420
cccctgcact acaccattat tatgagcagg caaaagtgt acacaatcat catagtttgt 480
tgtactgggg gatttataca ttctgccagt cagtttcttc tcaccatctt tgtaccattt 540
tgtggcccaa atgagataga tcactacttc tgtgatgtgt atcctttgct gaaattggcc 600
tgttctaata tacacatgat aggtctctta gtcattgcta attcaggctt aattgctttg 660
gtgacatttg ttgtcttggt gttgtcttat gtttttata tgtataccat cagagcatac 720
tctgcagaga gacgcagcaa agctcttgcc acttgtagtt ctcatgtaat tgttgtggtc 780
ctgttttttg ctctgcatt gttcatttac attagaccgg tcacaacatt ctcagaagat 840
aaagtgtttg ccctttttta taccatcatt gctcccatgt tcaaccctct catatacacg 900
ctgagaaaca cagagatgaa gaacgccatg aggaaagtgt ggtgttgtca aatactcctg 960
aaaagaaatc aacttttctg a 981

<210> 105
<211> 370
<212> PRT
<213> Homo sapiens

<400> 105
Met Phe Ser Met Thr Thr Glu Ala Leu Asn Asn Phe Ala Leu Gly Cys
1 5 10 15
Thr Asn Leu Leu Met Thr Met Ile Pro Gln Ile Asp Leu Lys Gln Ile
20 25 30
Phe Leu Cys Pro Asn Cys Arg Leu Tyr Met Ile Pro Val Gly Ala Phe
35 40 45
Ile Phe Ser Leu Gly Asn Met Gln Asn Gln Ser Phe Val Thr Glu Phe
50 55 60
Val Leu Leu Gly Leu Ser Gln Asn Pro Asn Val Gln Glu Ile Val Phe
65 70 75 80
Val Val Phe Leu Phe Val Tyr Ile Ala Thr Val Gly Gly Asn Met Leu
85 90 95
Ile Val Val Thr Ile Leu Ser Ser Pro Ala Leu Leu Val Ser Pro Met
100 105 110
Tyr Phe Phe Leu Gly Phe Leu Ser Phe Leu Asp Ala Cys Phe Ser Ser
115 120 125
Val Ile Thr Pro Lys Met Ile Val Asp Ser Leu Tyr Val Thr Lys Thr
130 135 140
Ile Ser Phe Glu Gly Cys Met Met Gln Leu Phe Ala Glu His Phe Phe
145 150 155 160
Ala Gly Val Glu Val Ile Val Leu Thr Ala Met Ala Tyr Asp Arg Tyr

165										170					175				
Val	Ala	Ile	Cys	Lys	Pro	Leu	His	Tyr	Ser	Ser	Ile	Met	Asn	Arg	Arg				
180										185					190				
Leu	Cys	Gly	Ile	Leu	Met	Gly	Val	Ala	Trp	Thr	Gly	Gly	Leu	Leu	His				
195										200					205				
Ser	Met	Ile	Gln	Ile	Leu	Phe	Thr	Phe	Gln	Leu	Pro	Phe	Cys	Gly	Pro				
210										215					220				
Asn	Val	Ile	Asn	His	Phe	Met	Cys	Asp	Leu	Tyr	Pro	Leu	Leu	Glu	Leu				
225										230					235				
Ala	Cys	Thr	Asp	Thr	His	Ile	Phe	Gly	Leu	Met	Val	Val	Ile	Asn	Ser				
245										250					255				
Gly	Phe	Ile	Cys	Ile	Ile	Asn	Phe	Ser	Leu	Leu	Leu	Val	Ser	Tyr	Ala				
260										265					270				
Val	Ile	Leu	Leu	Ser	Leu	Arg	Thr	His	Ser	Ser	Glu	Gly	Arg	Trp	Lys				
275										280					285				
Ala	Leu	Ser	Thr	Cys	Gly	Ser	His	Ile	Ala	Val	Val	Ile	Leu	Phe	Phe				
290										295					300				
Val	Pro	Cys	Ile	Phe	Val	Tyr	Thr	Arg	Pro	Pro	Ser	Ala	Phe	Ser	Leu				
305										310					315				
Asp	Lys	Met	Ala	Ala	Ile	Phe	Tyr	Ile	Ile	Leu	Asn	Pro	Leu	Leu	Asn				
325										330					335				
Pro	Leu	Ile	Tyr	Thr	Phe	Arg	Asn	Lys	Glu	Val	Lys	Gln	Ala	Met	Arg				
340										345					350				
Arg	Ile	Trp	Asn	Arg	Leu	Met	Val	Val	Ser	Asp	Glu	Lys	Glu	Asn	Ile				
355										360					365				
Lys	Leu																		
370																			

<210> 106
 <211> 1113
 <212> DNA
 <213> Homo sapiens

<400> 106
 atgttctcaa tgacaacaga agcactcaat aattttgcac ttggatgtac caacttggtta 60
 atgactatga taccacaaat tgatctgaag caaattttcc tttgtcctaa ttgcagacta 120
 tacatgatcc ctgttgagc tttcatcttt tccttgggaa acatgcaaaa ccaaagcttt 180
 gtaactgagt ttgtcctcct gggactttca cagaatccaa atgttcagga aatagtattt 240
 gttgtatttt tgtttgtcta cattgcaact gttgggggca acatgctaata ttagtaacc 300
 attctcagca gccctgctct tctgggtgtct cctatgtact tcttcttggg cttcctgtcc 360
 ttcttgatg cgtgcttctc atctgtcatc accccaaaga tgattgtaga ctccctctat 420
 gtgacaaaaa ccatctcttt tgaaggctgc atgatgcagc tctttgctga acacttcttt 480
 gctgggggtg aggtgattgt cctcacagcc atggcctatg atcgttatgt ggccatttgc 540

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aagcccttgc attactcttc tatcatgaac aggaggctct gtggcattct gatgggggta 600
gcctggacag ggggcctctt gcattccatg atacaaattc tttttacttt ccagcttccc 660
ttttgtggcc ccaatgtcat caatcacttt atgtgtgact tgtaccggtt actggagctt 720
gcctgcactg atactcacat ctttggcctc atgggtgtca tcaacagtgg gtttatctgc 780
atcataaact tctccttggt gcttgtctcc tatgctgtca tcttgccttc tctgagaaca 840
cacagtcttg aagggcgctg gaaagctctc tccacctgtg gatctcacat tgctgttggtg 900
attttgttct ttgtcccatg catatttgta tatacacgac ctccatctgc tttttccctt 960
gacaaaatgg cggcaatatt ttatatcatc ttaaatccct tgctcaatcc tttgattttac 1020
actttcagga ataaggaagt aaaacaggcc atgaggagaa tatggaacag actgatgggtg 1080
gtttctgatg agaaagaaaa tattaaactt taa 1113

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<210> 107
<211> 315
<212> PRT
<213> Homo sapiens

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<400> 107
Met Gly Asp Trp Asn Asn Ser Asp Ala Val Glu Pro Ile Phe Ile Leu
  1           5           10          15

Arg Gly Phe Pro Gly Leu Glu Tyr Val His Ser Trp Leu Ser Ile Leu
          20          25          30

Phe Cys Leu Ala Tyr Leu Val Ala Phe Met Gly Asn Val Thr Ile Leu
  35           40           45

Ser Val Ile Trp Ile Glu Ser Ser Leu His Gln Pro Met Tyr Tyr Phe
  50           55           60

Ile Ser Ile Leu Ala Val Asn Asp Leu Gly Met Ser Leu Ser Thr Leu
  65           70           75           80

Pro Thr Met Leu Ala Val Leu Trp Leu Asp Ala Pro Glu Ile Gln Ala
          85          90          95

Ser Ala Cys Tyr Ala Gln Leu Phe Phe Ile His Thr Phe Thr Phe Leu
 100          105          110

Glu Ser Ser Val Leu Leu Ala Met Ala Phe Asp Arg Phe Val Ala Ile
 115          120          125

Cys His Pro Leu His Tyr Pro Thr Ile Leu Thr Asn Ser Val Ile Gly
 130          135          140

Lys Ile Gly Leu Ala Cys Leu Leu Arg Ser Leu Gly Val Val Leu Pro
 145          150          155          160

Thr Pro Leu Leu Leu Arg His Tyr His Tyr Cys His Gly Asn Ala Leu
          165          170          175

Ser His Ala Phe Cys Leu His Gln Asp Val Leu Arg Leu Ser Cys Thr
          180          185          190

Asp Ala Arg Thr Asn Ser Ile Tyr Gly Leu Cys Val Val Ile Ala Thr
 195          200          205

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Leu Gly Val Asp Ser Ile Phe Ile Leu Leu Ser Tyr Val Leu Ile Leu
 210 215 220
 Asn Thr Val Leu Asp Ile Ala Ser Arg Glu Glu Gln Leu Lys Ala Leu
 225 230 235 240
 Asn Thr Cys Val Ser His Ile Cys Val Val Leu Ile Phe Phe Val Pro
 245 250 255
 Val Ile Gly Val Ser Met Val His Arg Phe Gly Lys His Leu Ser Pro
 260 265 270
 Ile Val His Ile Leu Met Ala Asp Ile Tyr Leu Leu Leu Pro Pro Val
 275 280 285
 Leu Asn Pro Ile Val Tyr Ser Val Arg Thr Lys Gln Ile Arg Leu Gly
 290 295 300
 Ile Leu His Lys Phe Val Leu Arg Arg Arg Phe
 305 310 315

<210> 108
 <211> 948
 <212> DNA
 <213> Homo sapiens

<400> 108
 atgggagact ggaataacag tgatgctgtg gagcccatat ttatcctgag gggttttcct 60
 ggactggagt atgttcattc ttggctctcc atcctcttct gtcttgcata tttgggtagca 120
 tttatgggta atgttaccat cctgtctgtc atttggatag aatcctctct ccatcagccc 180
 atgtattact ttatttccat cttagcagtg aatgacctgg ggatgtccct gtctacactt 240
 cccaccatgc ttgctgtgtt atggttggat gctccagaga tccaggcaag tgcttgctat 300
 gctcagctgt tcttcattca cacattcaca ttctggagt cctcagtggt gctggccatg 360
 gcctttgacc gttttgttgc tatctgccat ccactgcact accccaccat cctcaccaac 420
 agtghtaattg gcaaaattgg tttggcctgt ttgctacgaa gcttgggagt tgtacttccc 480
 acacctttgc tactgagaca ctatcactac tgccatggca atgcctcttc tcacgccttc 540
 tgtttgcacc aggatgttct aagattatcc tgtacagatg ccaggaccaa cagtatttat 600
 gggctttgtg tagtcattgc cacactaggt gtggattcaa tcttcatact tctttcttat 660
 gttctgattc ttaatactgt gctggatatt gcatctcgtg aagagcagct aaaggcactc 720
 aacacatgtg tatcccatat ctgtgtggtg cttatcttct ttgtgccagt tattgggggtg 780
 tcaatgggtcc atcgctttgg gaagcatctg tctcccatag tccacatcct catggcagac 840
 atctaccttc ttcttcccc agtccttaac cctattgtct atagtgtcag aacaaagcag 900
 attcgtctag gaattctcca caagtttgtc ctaaggagga ggttttta 948

<210> 109
 <211> 325
 <212> PRT
 <213> Homo sapiens

<400> 109
 Met Phe Leu Pro Asn Asp Thr Gln Phe His Pro Ser Ser Phe Leu Leu
 1 5 10 15
 Leu Gly Ile Pro Gly Leu Glu Thr Leu His Ile Trp Ile Gly Phe Pro
 20 25 30

Phe Cys Ala Val Tyr Met Ile Ala Leu Ile Gly Asn Phe Thr Ile Leu
35 40 45
Leu Val Ile Lys Thr Asp Ser Ser Leu His Gln Pro Met Phe Tyr Phe
50 55 60
Leu Ala Met Leu Ala Thr Thr Asp Val Gly Leu Ser Thr Ala Thr Ile
65 70 75 80
Pro Lys Met Leu Gly Ile Phe Trp Ile Asn Leu Arg Gly Ile Ile Phe
85 90 95
Glu Ala Cys Leu Thr Gln Met Phe Phe Ile His Asn Phe Thr Leu Met
100 105 110
Glu Ser Ala Val Leu Val Ala Met Ala Tyr Asp Ser Tyr Val Ala Ile
115 120 125
Cys Asn Pro Leu Gln Tyr Ser Ala Ile Leu Thr Asn Lys Val Val Ser
130 135 140
Val Ile Gly Leu Gly Val Phe Val Arg Ala Leu Ile Phe Val Ile Pro
145 150 155 160
Ser Ile Leu Leu Ile Leu Arg Leu Pro Phe Cys Gly Asn His Val Ile
165 170 175
Pro His Thr Tyr Cys Glu His Met Gly Leu Ala His Leu Ser Cys Ala
180 185 190
Ser Ile Lys Ile Asn Ile Ile Tyr Gly Leu Cys Ala Ile Cys Asn Leu
195 200 205
Val Phe Asp Ile Thr Val Ile Ala Leu Ser Tyr Val His Ile Leu Cys
210 215 220
Ala Val Phe Arg Leu Pro Thr His Glu Pro Arg Leu Lys Ser Leu Ser
225 230 235 240
Thr Cys Gly Ser His Val Cys Val Ile Leu Ala Phe Tyr Thr Pro Ala
245 250 255
Leu Phe Ser Phe Met Thr His Cys Phe Gly Arg Asn Val Pro Arg Tyr
260 265 270
Ile His Ile Leu Leu Ala Asn Leu Tyr Val Val Val Pro Pro Met Leu
275 280 285
Asn Pro Val Ile Tyr Gly Val Arg Thr Lys Gln Ile Tyr Lys Cys Val
290 295 300
Lys Lys Ile Leu Leu Gln Glu Gln Gly Met Glu Lys Glu Glu Tyr Leu
305 310 315 320
Ile His Thr Arg Phe
325

<210> 110
 <211> 978
 <212> DNA
 <213> Homo sapiens

<400> 110
 atgttccttc ccaatgacac ccagtttcac ccctcctcct tcctgttgct ggggatccca 60
 ggactagaaa cacttcacat ctggatcggc tttcccttct gtgctgtgta catgatcgca 120
 ctcataggga acttcactat tctacttggt atcaagactg acagcagcct acaccagccc 180
 atgttctact tcctggccat gttggccacc actgatgtgg gtctctcaac agctaccatc 240
 cctaagatgc ttggaatctt ctggatcaac ctcagaggga tcctctttga agcctgcctc 300
 acccagatgt tttttatcca caacttcaca cttatggagt cagcagtcct tgtggcaatg 360
 gcttatgaca gctatgtggc catctgcaat ccactccaat atagcgccat cctcaccaac 420
 aagggtgttt ctgtgattgg tcttggtgtg tttgtgaggg ctttaatttt cgtcattccc 480
 tctatacttc ttatattgcg gttgcccttc tgtgggaatc atgtaattcc ccacacctac 540
 tgtgagcaca tgggtccttg tcctctatct tgtgccagca tcaaaatcaa tattatttat 600
 ggtttatgtg ccatttgtaa tctggtgttt gacatcacag tcattgcctt ctcttatgtg 660
 catattcttt gtgctgtttt ccgtcttctt actcatgagc cccgactcaa gtccctcagc 720
 acatgtgggt cacetgtgtg tgtaatcctt gccttctata caccagccct cttttccttt 780
 atgactcatt gctttggcgg aaatgtgccc cgctatatcc atatactcct agccaatctc 840
 tatgttggtg tgccaccaat gctcaatcct gtcatatatg gagtcagaac caagcagatc 900
 tataaatgtg taaagaaaat attattgcag gaacaaggaa tggaaaagga agagtaccta 960
 atacatacga ggttctga 978

<210> 111
 <211> 313
 <212> PRT
 <213> Homo sapiens

<400> 111
 Met Ser Ile Ile Asn Thr Ser Tyr Val Glu Ile Thr Thr Phe Phe Leu
 1 5 10 15
 Val Gly Met Pro Gly Leu Glu Tyr Ala His Ile Trp Ile Ser Ile Pro
 20 25 30
 Ile Cys Ser Met Tyr Leu Ile Ala Ile Leu Gly Asn Gly Thr Ile Leu
 35 40 45
 Phe Ile Ile Lys Thr Glu Pro Ser Leu His Gly Pro Met Tyr Tyr Phe
 50 55 60
 Leu Ser Met Leu Ala Met Ser Asp Leu Gly Leu Ser Leu Ser Ser Leu
 65 70 75 80
 Pro Thr Val Leu Ser Ile Phe Leu Phe Asn Ala Pro Glu Thr Ser Ser
 85 90 95
 Ser Ala Cys Phe Ala Gln Glu Phe Phe Ile His Gly Phe Ser Val Leu
 100 105 110
 Glu Ser Ser Val Leu Leu Ile Met Ser Phe Asp Arg Phe Leu Ala Ile
 115 120 125

His Asn Pro Leu Arg Tyr Thr Ser Ile Leu Thr Thr Val Arg Val Ala
 130 135 140
 Gln Ile Gly Ile Val Phe Ser Phe Lys Ser Met Leu Leu Val Leu Pro
 145 150 155 160
 Phe Pro Phe Thr Leu Arg Ser Leu Arg Tyr Cys Lys Lys Asn Gln Leu
 165 170 175
 Ser His Ser Tyr Cys Leu His Gln Asp Val Met Lys Leu Ala Cys Ser
 180 185 190
 Asp Asn Arg Ile Asp Val Ile Tyr Gly Phe Phe Gly Ala Leu Cys Leu
 195 200 205
 Met Val Asp Phe Ile Leu Ile Ala Val Ser Tyr Thr Leu Ile Leu Lys
 210 215 220
 Thr Val Pro Gly Ile Ala Ser Lys Lys Glu Glu Leu Lys Ala Leu Asn
 225 230 235 240
 Thr Cys Val Ser His Ile Cys Ala Val Ile Ile Phe Tyr Leu Pro Ile
 245 250 255
 Ile Asn Leu Ala Val Val His Arg Phe Ala Gly His Val Ser Pro Leu
 260 265 270
 Ile Asn Val Leu Met Ala Asn Val Leu Leu Leu Val Pro Pro Leu Met
 275 280 285
 Lys Pro Ile Val Tyr Cys Val Lys Thr Lys Gln Ile Arg Val Arg Val
 290 295 300
 Val Ala Lys Leu Cys Gln Trp Lys Ile
 305 310

<210> 112

<211> 942

<212> DNA

<213> Homo sapiens

<400> 112

atgtccatta tcaacacatc atatgttgaa atcaccacct tcttcttggt tgggatgccca 60
 gggctagaat atgcacacat ctggatctct atccccatct gcagcatgta tcttattgct 120
 attctaggaa atggcaccat tctttttatc atcaagacag agccctcctt gcatgggccc 180
 atgtactatt ttctttccat gttggctatg tcagacttgg gtttgccttt atcatctctg 240
 cccactgtgt taagcatctt cctgttcaat gccctgaaa cttcttctag tgcctgcttt 300
 gcccaggaat tcttcattca tggattctca gtactggagt cctcagtcct cctgatcatg 360
 tcatttgata gattcctagc catccacaat cctctgagat acacctcaat cctgacaact 420
 gtcagagttg cccaaatagg gatagtattc tcccttaaga gcatgctcct gggtcttccc 480
 ttccctttca ctttaagaag cttgagatat tgcaagaaaa accaattatc ccattcctac 540
 tgtctccacc aggatgtcat gaagttggcc tgttctgaca acagaattga tggtatctat 600
 ggcttttttg gagcactctg ccttatggta gactttattc tcattgctgt gtcttacacc 660
 ctgatcctca agactgtacc ggggaattgca tccaaaaagg aggagcttaa ggctctcaat 720
 acttggtgtt cacacatctg tgcagtgatc atcttctacc tgcccatcat caacctggcc 780
 gttgtccacc gctttgccgg gcatgtctct cccctcatta atgttctcat ggcaaatggt 840

ctcctacttg tacctccgct gatgaaacca attgtttatt gtgtaaaaac taaacagatt 900
agagtgagag ttgtagcaaa attgtgtcaa tggaagattt aa 942

<210> 113
<211> 311
<212> PRT
<213> Homo sapiens

<400> 113
Met Phe Tyr His Asn Lys Ser Ile Phe His Pro Val Thr Phe Phe Leu
1 5 10 15
Ile Gly Ile Pro Gly Leu Glu Asp Phe His Met Trp Ile Ser Gly Pro
20 25 30
Phe Cys Ser Val Tyr Leu Val Ala Leu Leu Gly Asn Ala Thr Ile Leu
35 40 45
Leu Val Ile Lys Val Glu Gln Thr Leu Arg Glu Pro Met Phe Tyr Phe
50 55 60
Leu Ala Ile Leu Ser Thr Ile Asp Leu Ala Leu Ser Ala Thr Ser Val
65 70 75 80
Pro Arg Met Leu Gly Ile Phe Trp Phe Asp Ala His Glu Ile Asn Tyr
85 90 95
Gly Ala Cys Val Ala Gln Met Phe Leu Ile His Ala Phe Thr Gly Met
100 105 110
Glu Ala Glu Val Leu Leu Ala Met Ala Phe Asp Arg Tyr Val Ala Ile
115 120 125
Cys Ala Pro Leu His Tyr Ala Thr Ile Leu Thr Ser Leu Val Leu Val
130 135 140
Gly Ile Ser Met Cys Ile Val Ile Arg Pro Val Leu Leu Thr Leu Pro
145 150 155 160
Met Val Tyr Leu Ile Tyr Arg Leu Pro Phe Cys Gln Ala His Ile Ile
165 170 175
Ala His Ser Tyr Cys Glu His Met Gly Ile Ala Lys Leu Ser Cys Gly
180 185 190
Asn Ile Arg Ile Asn Gly Ile Tyr Gly Leu Phe Val Val Ser Phe Phe
195 200 205
Val Leu Asn Leu Val Leu Ile Gly Ile Ser Tyr Val Tyr Ile Leu Arg
210 215 220
Ala Val Phe Arg Leu Pro Ser His Asp Ala Gln Leu Lys Ala Leu Ser
225 230 235 240
Thr Cys Gly Ala His Val Gly Val Ile Cys Val Phe Tyr Ile Pro Ser
245 250 255

Val Phe Ser Phe Leu Thr His Arg Phe Gly His Gln Ile Pro Gly Tyr
260 265 270

Ile His Ile Leu Val Ala Asn Leu Tyr Leu Ile Ile Pro Pro Ser Leu
275 280 285

Asn Pro Ile Ile Tyr Gly Val Arg Thr Lys Gln Ile Arg Glu Arg Val
290 295 300

Leu Tyr Val Phe Thr Lys Lys
305 310

<210> 114
<211> 936
<212> DNA
<213> Homo sapiens

<400> 114
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atgttctact tcctggccat tctttccact attgatttgg ccctttctgc aacctctgtg 240
cctcgcatgc tgggtatctt ctggtttgat gctcacgaga ttaactatgg agcttgtgtg 300
gccagatgt ttctgatcca tgccttcact ggcattggagg ctgaggtctt actggctatg 360
gcttttgacc gttatgtggc catctgtgct ccactacatt acgcaacat cttgacatcc 420
ctagtgttg tgggcattag catgtgcatt gtaattcgtc ccgttttact tacacttccc 480
atggtctatc ttatctaccg cctacccttt tgtcaggctc acataatagc ccattcctac 540
tgtgagcaca tgggcattgc aaaattgtcc tgtggaaaca ttcgtatcaa tggatatctat 600
gggctttttg tagtttcttt ctttgttctg aacctgggtgc tcattggcat ctcgatgtt 660
tacattctcc gtgctgtctt ccgcctccca tcacatgatg ctacagctaaa agccctaagc 720
acgtgtggcg ctcatgttgg agtcactctgt gttttctata tcccttcagt cttctctttc 780
cttactcatc gatttggaca ccaaatacca ggttacattc acattcttgt tgccaatctc 840
tatttgatta tcccaccctc tctcaacccc atcatttatg gggtgaggac caaacagatt 900
cgagagcgag tgctctatgt ttttactaaa aaataa 936

<210> 115
<211> 313
<212> PRT
<213> Homo sapiens

<400> 115
Met Ser Ile Ile Asn Thr Ser Tyr Val Glu Ile Thr Thr Phe Phe Leu
1 5 10 15

Val Gly Met Pro Gly Leu Glu Tyr Ala His Ile Trp Ile Ser Ile Pro
20 25 30

Ile Cys Ser Met Tyr Leu Ile Ala Ile Leu Gly Asn Gly Thr Ile Leu
35 40 45

Phe Ile Ile Lys Thr Glu Pro Ser Leu His Glu Pro Met Tyr Tyr Phe
50 55 60

Leu Ser Met Leu Ala Met Ser Asp Leu Gly Leu Ser Leu Ser Ser Leu

65		70		75		80
Pro Thr Val Leu Ser Ile Phe Leu Phe Asn Ala Pro Glu Ile Ser Ser	85	90	95			
Asn Ala Cys Phe Ala Gln Glu Phe Phe Ile His Gly Phe Ser Val Leu	100	105	110			
Glu Ser Ser Val Leu Leu Ile Met Ser Phe Asp Arg Phe Leu Ala Ile	115	120	125			
His Asn Pro Leu Arg Tyr Thr Ser Ile Leu Thr Thr Val Arg Val Ala	130	135	140			
Gln Ile Gly Ile Val Phe Ser Phe Lys Ser Met Leu Leu Val Leu Pro	145	150	155	160		
Phe Pro Phe Thr Leu Arg Asn Leu Arg Tyr Cys Lys Lys Asn Gln Leu	165	170	175			
Ser His Ser Tyr Cys Leu His Gln Asp Val Met Lys Leu Ala Cys Ser	180	185	190			
Asp Asn Arg Ile Asp Val Ile Tyr Gly Phe Phe Gly Ala Leu Cys Leu	195	200	205			
Met Val Asp Phe Ile Leu Ile Ala Val Ser Tyr Thr Leu Ile Leu Lys	210	215	220			
Thr Val Leu Gly Ile Ala Ser Lys Lys Glu Gln Leu Lys Ala Leu Asn	225	230	235	240		
Thr Cys Val Ser His Ile Cys Ala Val Ile Ile Phe Tyr Leu Pro Ile	245	250	255			
Ile Asn Leu Ala Val Val His Arg Phe Ala Arg His Val Ser Pro Leu	260	265	270			
Ile Asn Val Leu Met Ala Asn Val Leu Leu Leu Val Pro Pro Leu Thr	275	280	285			
Asn Pro Ile Val Tyr Cys Val Lys Thr Lys Gln Ile Arg Val Arg Val	290	295	300			
Val Ala Lys Leu Cys Gln Arg Lys Ile	305	310				

<210> 116

<211> 942

<212> DNA

<213> Homo sapiens

<400> 116

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 attctaggaa atggcaccat tctttttatc atcaagacag agccctcctt gcatgagccc 180

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atgtactatt ttctttccat gttggetatg tcagacttgg gtttgtcttt atcatctctg 240
cccactgtgt taagcatctt cctgttcaat gtccttgaaa ttcatccaa tgccctgcttt 300
gcccaggaat tcttcattca tggattctca gtactggagt cctcagtcct cctgatcatg 360
tcatttgata gattcctagc catccacaac cctctgagat acacctcaat cctgacaact 420
gtcagagttg cccaaatagg gatagtattc tcctttaaga gcatgctcct gggtcttccc 480
ttccctttca ctttaagaaa cttgagatat tgcaagaaaa accaattatc ccattcctac 540
tgtctccacc aggatgtcat gaagttggcc tgttctgaca acagaattga tgttatctat 600
ggcttttttg gagcactctg ccttatggta gactttattc tcattgctgt gtcttacacc 660
ctgatcctca agactgtact ggggaattgca tccaaaaagg agcagcttaa ggctctcaat 720
acttgtgttt cacacatctg tgcagtgatc atcttctacc tgcccatcat caacctggcc 780
gttgtccacc gctttgcccg gcatgtctct cccctcatta atgttctcat ggcaaagtgt 840
ctcctacttg tacctccact gacgaaccca attgtttatt gtgtaaaaac taaacagatt 900
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<210> 117

<211> 321

<212> PRT

<213> Homo sapiens

<400> 117

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Met Thr Ile Leu Leu Asn Ser Ser Leu Gln Arg Ala Thr Phe Phe Leu
  1              5              10              15

Thr Gly Phe Gln Gly Leu Glu Gly Leu His Gly Trp Ile Ser Ile Pro
          20              25              30

Phe Cys Phe Ile Tyr Leu Thr Val Ile Leu Gly Asn Leu Thr Ile Leu
          35              40              45

His Val Ile Cys Thr Asp Ala Thr Leu His Gly Pro Met Tyr Tyr Phe
          50              55              60

Leu Gly Met Leu Ala Val Thr Asp Leu Gly Leu Cys Leu Ser Thr Leu
          65              70              75              80

Pro Thr Val Leu Gly Ile Phe Trp Phe Asp Thr Arg Glu Ile Gly Ile
          85              90              95

Pro Ala Cys Phe Thr Gln Leu Phe Phe Ile His Thr Leu Ser Ser Met
          100              105              110

Glu Ser Ser Val Leu Leu Ser Met Ser Ile Asp Arg Ser Val Ala Val
          115              120              125

Cys Asn Pro Leu His Asp Ser Thr Val Leu Thr Pro Ala Cys Ile Val
          130              135              140

Lys Met Gly Leu Ser Ser Val Leu Arg Ser Ala Leu Leu Ile Leu Pro
          145              150              155              160

Leu Pro Phe Leu Leu Lys Arg Phe Gln Tyr Cys His Ser His Val Leu
          165              170              175

Ala His Ala Tyr Cys Leu His Leu Glu Ile Met Lys Leu Ala Cys Ser
          180              185              190

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Ser Ile Ile Val Asn His Ile Tyr Gly Leu Phe Val Val Ala Cys Thr
195 200 205

Val Gly Val Asp Ser Leu Leu Ile Phe Leu Ser Tyr Ala Leu Ile Leu
210 215 220

Arg Thr Val Leu Ser Ile Ala Ser His Gln Glu Arg Leu Arg Ala Leu
225 230 235 240

Asn Thr Cys Val Ser His Ile Cys Ala Val Leu Leu Phe Tyr Ile Pro
245 250 255

Met Ile Gly Leu Ser Leu Val His Arg Phe Gly Glu His Leu Pro Arg
260 265 270

Val Val His Leu Phe Met Ser Tyr Val Tyr Leu Leu Val Pro Pro Leu
275 280 285

Met Asn Pro Ile Ile Tyr Ser Ile Lys Thr Lys Gln Ile Arg Gln Arg
290 295 300

Ile Ile Lys Lys Phe Gln Phe Ile Lys Ser Leu Arg Cys Phe Trp Lys
305 310 315 320

Asp

<210> 118
<211> 966
<212> DNA
<213> Homo sapiens

<400> 118
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atcttgggga acctcaccat tctccacgtc atttgtagtg atgccactct ccatggaccc 180
atgtactatt tcttgggcat gctagctgtc acagacttag gcctttgcct ttccacactg 240
ccactgtgc tgggcatttt ctggtttgat accagagaga ttggcatccc tgctgtttc 300
actcagctct tcttcatcca caccttgtct tcaatggagt catcagttct gttatccatg 360
tccattgacc gctccgtggc cgtctgcaac ccaactgcatg actccaccgt cctgacacct 420
gcatgtattg tcaagatggg gctaagctca gtgcttagaa gtgctctcct catcctcccc 480
ttgccattcc tcctgaagcg cttccaatac tgccactccc atgtgctggc tcatgcttat 540
tgtcttcacc tggagatcat gaagctggcc tgctctagca tcattgtcaa tcacatctat 600
gggctctttg ttgtggcctg caccgtgggt gtggactccc tgctcatctt tctctcatat 660
gccctcatcc ttcgcaccgt gctcagcatt gcctcccacc aggagcgact ccgagccctc 720
aacacctgtg tctctcatat ctgtgctgta ctgctcttct acatcccat gattggcttg 780
tctcttgtgc atcgctttgg tgaacatctg cccgcgttg tacacctctt catgtcctat 840
gtgtatctgc tggtagcacc ccttatgaac cccatcatct acagcatcaa gaccaagcaa 900
attcgccagc gcatcattaa gaagtttcag tttataaagt cacttaggtg tttttggaag 960
gattaa 966

<210> 119
<211> 317
<212> PRT
<213> Homo sapiens

<400> 119

Met	Ala	Gly	Arg	Met	Ser	Thr	Ser	Asn	His	Thr	Gln	Phe	His	Pro	Ser
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Ser	Phe	Leu	Leu	Leu	Gly	Ile	Pro	Gly	Leu	Glu	Asp	Val	His	Ile	Trp
		20						25					30		
Ile	Gly	Val	Pro	Phe	Phe	Phe	Val	Tyr	Leu	Val	Ala	Leu	Leu	Gly	Asn
		35					40					45			
Thr	Ala	Leu	Leu	Phe	Val	Ile	Gln	Thr	Glu	Gln	Ser	Leu	His	Glu	Pro
	50					55					60				
Met	Tyr	Tyr	Phe	Leu	Ala	Met	Leu	Asp	Ser	Ile	Asp	Leu	Gly	Leu	Ser
65					70					75					80
Thr	Ala	Thr	Ile	Pro	Lys	Met	Leu	Gly	Ile	Phe	Trp	Phe	Asn	Thr	Lys
				85					90					95	
Glu	Ile	Ser	Phe	Gly	Gly	Cys	Leu	Ser	His	Met	Phe	Phe	Ile	His	Phe
			100					105					110		
Phe	Thr	Ala	Met	Glu	Ser	Ile	Val	Leu	Val	Ala	Met	Ala	Phe	Asp	Arg
		115					120					125			
Tyr	Ile	Ala	Ile	Cys	Lys	Pro	Leu	Arg	Tyr	Thr	Met	Ile	Leu	Thr	Ser
	130					135					140				
Lys	Ile	Ile	Ser	Leu	Ile	Ala	Gly	Ile	Ala	Val	Leu	Arg	Ser	Leu	Tyr
145					150					155					160
Met	Val	Val	Pro	Leu	Val	Phe	Leu	Leu	Leu	Arg	Leu	Pro	Phe	Cys	Gly
			165						170					175	
His	Arg	Ile	Ile	Pro	His	Thr	Tyr	Cys	Glu	His	Met	Gly	Ile	Ala	Arg
		180						185					190		
Leu	Ala	Cys	Ala	Ser	Ile	Lys	Val	Asn	Ile	Arg	Phe	Gly	Leu	Gly	Asn
		195					200					205			
Ile	Ser	Leu	Leu	Leu	Leu	Asp	Val	Ile	Leu	Ile	Ile	Leu	Ser	Tyr	Val
	210					215					220				
Arg	Ile	Leu	Tyr	Ala	Val	Phe	Cys	Leu	Pro	Ser	Trp	Glu	Ala	Arg	Leu
225					230					235					240
Lys	Ala	Leu	Asn	Thr	Cys	Gly	Ser	His	Ile	Gly	Val	Ile	Leu	Ala	Phe
			245						250					255	
Phe	Thr	Pro	Ala	Phe	Phe	Ser	Phe	Leu	Thr	His	Arg	Phe	Gly	His	Asn
		260						265					270		
Ile	Pro	Gln	Tyr	Ile	His	Ile	Ile	Leu	Ala	Asn	Leu	Tyr	Val	Val	Val
	275						280					285			
Pro	Pro	Ala	Leu	Asn	Pro	Val	Ile	Tyr	Gly	Val	Arg	Thr	Lys	Gln	Ile

290

295

300

Arg Glu Arg Val Leu Arg Ile Phe Leu Lys Thr Asn His
305 310 315

<210> 120

<211> 954

<212> DNA

<213> Homo sapiens

<400> 120

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ctgggtatcc cagggctaga agatgtgcac atttggattg gaggcccttt tttctttgtg 120
tatcttggtg cactcctggg aaacactgct ctcttggttg tgatccagac tgagcagagt 180
ctccatgagc ctatgtacta ctccctggcc atgttggatt ccattgacct gggcttgtct 240
acagccacca tccccaaaat gttgggcata ttctggttca ataccaaaga aatatctttt 300
ggaggctgcc tttctcacat gttcttcata catttcttca ctgctatgga gagcattgtg 360
ttggtggcca tggcctttga ccgctacatt gccatttgca aacctcttcg gtacaccatg 420
atcctcacca gcaaaatcat cagcctcatt gcaggcattg ctgtcctgag gagcctgtac 480
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aacattaggt ttggccttgg caacatatct ctcttggttac tggatgttat ccttattatt 660
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ttagccaacc tgtatgtggt tgtcccacca gccctcaatc ctgtaatcta tggagtcagg 900
acaaagcaga ttcgagagag agtgctgagg attttttctca agaccaatca ctaa 954

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<210> 121

<211> 320

<212> PRT

<213> Homo sapiens

<400> 121

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Met Ser Phe Leu Asn Gly Thr Ser Leu Thr Pro Ala Ser Phe Ile Leu
 1             5             10            15

Asn Gly Ile Pro Gly Leu Glu Asp Val His Leu Trp Ile Ser Phe Pro
 20             25            30

Leu Cys Thr Met Tyr Ser Ile Ala Ile Thr Gly Asn Phe Gly Leu Met
 35             40            45

Tyr Leu Ile Tyr Cys Asp Glu Ala Leu His Arg Pro Met Tyr Val Phe
 50             55            60

Leu Ala Leu Leu Ser Phe Thr Asp Val Leu Met Cys Thr Ser Thr Leu
 65             70            75            80

Pro Asn Thr Leu Phe Ile Leu Trp Phe Asn Leu Lys Glu Ile Asp Phe
 85             90            95

Lys Ala Cys Leu Ala Gln Met Phe Phe Val His Thr Phe Thr Gly Met
100            105            110

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Glu Ser Gly Val Leu Met Leu Met Ala Leu Asp His Cys Val Ala Ile
 115 120 125
 Cys Phe Pro Leu Arg Tyr Ala Thr Ile Leu Thr Asn Ser Val Ile Ala
 130 135 140
 Lys Ala Gly Phe Leu Thr Phe Leu Arg Gly Val Met Leu Val Ile Pro
 145 150 155 160
 Ser Thr Phe Leu Thr Lys Arg Leu Pro Tyr Cys Lys Gly Asn Val Ile
 165 170 175
 Pro His Thr Tyr Cys Asp His Met Ser Val Ala Lys Ile Ser Cys Gly
 180 185 190
 Asn Val Arg Val Asn Ala Ile Tyr Gly Leu Ile Val Ala Leu Leu Ile
 195 200 205
 Gly Gly Phe Asp Ile Leu Cys Ile Thr Ile Ser Tyr Thr Met Ile Leu
 210 215 220
 Gln Ala Val Val Ser Leu Ser Ser Ala Asp Ala Arg Gln Lys Ala Phe
 225 230 235 240
 Ser Thr Cys Thr Ala His Phe Cys Ala Ile Val Leu Thr Tyr Val Pro
 245 250 255
 Ala Phe Phe Thr Phe Phe Thr His His Phe Gly Gly His Thr Ile Pro
 260 265 270
 Leu His Ile His Ile Ile Met Ala Asn Leu Tyr Leu Leu Met Pro Pro
 275 280 285
 Thr Met Asn Pro Ile Val Tyr Gly Val Lys Thr Arg Gln Val Arg Glu
 290 295 300
 Ser Val Ile Arg Phe Phe Leu Lys Gly Lys Asp Asn Ser His Asn Phe
 305 310 315 320

<210> 122
 <211> 963
 <212> DNA
 <213> Homo sapiens

<400> 122
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 attacaggga acttcggcct tatgtacctc atctactgtg atgaggcctt acacagacct 180
 atgtatgtct tccttgccct tctttccttc acagatgtgc tcatgtgcac cagcaccctt 240
 cccaacactc tcttcatatt gtggtttaat ctcaaggaga ttgattttaa agcctgcctc 300
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 gccctggacc actgtgtggc catctgcttc cctctgcgtt atgccaccat cctcactaat 420
 tcagtcattg ctaaagctgg gttcctcact tttcttaggg gtgtgatgct tgttatccct 480

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tccactttcc tcaccaagcg ccttccatac tgcaagggca acgtcatacc ccacacctac 540
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ggtttgatag ttgccctgct gattgggggc tttgatatcc tgtgcattac aatctcctac 660
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agcacctgca ctgcccactt ctgtgccata gtcctcacct atgttccagc cttctttacc 780
ttctttacac accatttttg gggacacacc attcctctac acatacatat tattatggct 840
aatctctacc tactaatgcc tcccacaatg aaccctattg tgtatggggg gaaaaccagg 900
caggtacgag aaagtgtcat taggttcttt cttaagggaa aggacaattc tcataacttt 960
taa 963

```

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<210> 123
<211> 321
<212> PRT
<213> Homo sapiens

```

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<400> 123
Met Ser Gly Asp Asn Ser Ser Ser Leu Thr Pro Gly Phe Phe Ile Leu
  1             5             10             15

Asn Gly Val Pro Gly Leu Glu Ala Thr His Ile Trp Ile Ser Leu Pro
      20             25             30

Phe Cys Phe Met Tyr Ile Ile Ala Val Val Gly Asn Cys Gly Leu Ile
      35             40             45

Cys Leu Ile Ser His Glu Glu Ala Leu His Arg Pro Met Tyr Tyr Phe
      50             55             60

Leu Ala Leu Leu Ser Phe Thr Asp Val Thr Leu Cys Thr Thr Met Val
      65             70             75             80

Pro Asn Met Leu Cys Ile Phe Trp Phe Asn Leu Lys Glu Ile Asp Phe
      85             90             95

Asn Ala Cys Leu Ala Gln Met Phe Phe Val His Met Leu Thr Gly Met
      100            105            110

Glu Ser Gly Val Leu Met Leu Met Ala Leu Asp Arg Tyr Val Ala Ile
      115            120            125

Cys Tyr Pro Leu Arg Tyr Ala Thr Ile Leu Thr Asn Pro Val Ile Ala
      130            135            140

Lys Ala Gly Leu Ala Thr Phe Leu Arg Asn Val Met Leu Ile Ile Pro
      145            150            155            160

Phe Thr Leu Leu Thr Lys Arg Leu Pro Tyr Cys Arg Gly Asn Phe Ile
      165            170            175

Pro His Thr Tyr Cys Asp His Met Ser Val Ala Lys Val Ser Cys Gly
      180            185            190

Asn Phe Lys Val Asn Ala Ile Tyr Gly Leu Met Val Ala Leu Leu Ile
      195            200            205

Gly Val Phe Asp Ile Cys Cys Ile Ser Val Ser Tyr Thr Met Ile Leu

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210	215	220
Gln Ala Val Met Ser Leu Ser Ser Ala Asp Ala Arg His Lys Ala Phe		
225	230	235 240
Ser Thr Cys Thr Ser His Met Cys Ser Ile Val Ile Thr Tyr Val Ala		
	245	250 255
Ala Phe Phe Thr Phe Phe Thr His Arg Phe Val Gly His Asn Ile Pro		
	260	265 270
Asn His Ile His Ile Ile Val Ala Asn Leu Tyr Leu Leu Leu Pro Pro		
	275	280 285
Thr Met Asn Pro Ile Val Tyr Gly Val Lys Thr Lys Gln Ile Gln Glu		
	290	295 300
Gly Val Ile Lys Phe Leu Leu Gly Asp Lys Val Ser Phe Thr Tyr Asp		
305	310	315 320

Lys

<210> 124
 <211> 966
 <212> DNA
 <213> Homo sapiens

<400> 124

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gtcgtgggga	actgtgggct	catctgcctc	atcagccatg	aggaggccct	gcaccggccc	180
atgtactact	tcctggccct	gctctccttc	actgatgtca	ccttgtgcac	caccatggta	240
cctaatatgc	tgtgcatatt	ctggttcaac	ctcaaggaga	ttgactttaa	cgctgcctg	300
gccagatgt	tttttgtcca	tatgctgaca	gggatggagt	ctggggtgct	catgctcatg	360
gccctggacc	gctatgtggc	catctgctac	cccttacgct	atgccaccat	ccttaccaac	420
cctgtcatcg	ccaaggctgg	tcttgccacc	ttcttgagga	atgtgatgct	catcatcca	480
ttcactctcc	tcaccaagcg	cctgccctat	tgccggggga	acttcatccc	ccacacctac	540
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actatgattt	tgcaggctgt	tatgagcctg	tcatcagcag	atgctcgtca	caaagccttc	720
agcacctgca	catctcacat	gtgttcatt	gtgatcacct	atgttgctgc	ttttttcact	780
tttttcactc	atcgttttgt	aggacacaat	atcccaaacc	acatacacat	catcggtggcc	840
aacctttatc	tgctactgcc	tcctaccatg	aacccaattg	tttatggagt	caagaccaag	900
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aatga						966

<210> 125
 <211> 315
 <212> PRT
 <213> Homo sapiens

<400> 125

Met Thr Thr His Arg Asn Asp Thr Leu Ser Thr Glu Ala Ser Asp Phe
1 5 10 15

Leu Leu Asn Cys Phe Val Arg Ser Pro Ser Trp Gln His Trp Leu Ser
 20 25 30
 Leu Pro Leu Ser Leu Leu Phe Leu Leu Ala Val Gly Ala Asn Thr Thr
 35 40 45
 Leu Leu Met Thr Ile Trp Leu Glu Ala Ser Leu His Gln Pro Leu Tyr
 50 55 60
 Tyr Leu Leu Ser Leu Leu Ser Leu Leu Asp Ile Val Leu Cys Leu Thr
 65 70 75 80
 Val Ile Pro Lys Val Leu Thr Ile Phe Trp Phe Asp Leu Arg Pro Ile
 85 90 95
 Ser Phe Pro Ala Cys Phe Leu Gln Met Tyr Ile Met Asn Cys Phe Leu
 100 105 110
 Ala Met Glu Ser Cys Thr Phe Met Val Met Ala Tyr Asp Arg Tyr Val
 115 120 125
 Ala Ile Cys His Pro Leu Arg Tyr Pro Ser Ile Ile Thr Asp His Phe
 130 135 140
 Val Val Lys Ala Ala Met Phe Ile Leu Thr Arg Asn Val Leu Met Thr
 145 150 155 160
 Leu Pro Ile Pro Ile Leu Ser Ala Gln Leu Arg Tyr Cys Gly Arg Asn
 165 170 175
 Val Ile Glu Asn Cys Ile Cys Ala Asn Met Ser Val Ser Arg Leu Ser
 180 185 190
 Cys Asp Asp Val Thr Ile Asn His Leu Tyr Gln Phe Ala Gly Gly Trp
 195 200 205
 Thr Leu Leu Gly Ser Asp Leu Ile Leu Ile Phe Leu Ser Tyr Thr Phe
 210 215 220
 Ile Leu Arg Ala Val Leu Arg Leu Lys Ala Glu Gly Ala Val Ala Lys
 225 230 235 240
 Ala Leu Ser Thr Cys Gly Ser His Phe Met Leu Ile Leu Phe Phe Ser
 245 250 255
 Thr Ile Leu Leu Val Phe Val Leu Thr His Val Ala Lys Lys Lys Val
 260 265 270
 Ser Pro Asp Val Pro Val Leu Leu Asn Val Leu His His Val Ile Pro
 275 280 285
 Ala Ala Leu Asn Pro Ile Ile Tyr Gly Val Arg Thr Gln Glu Ile Lys
 290 295 300
 Gln Gly Met Gln Arg Leu Leu Lys Lys Gly Cys
 305 310 315

<210> 126
 <211> 948
 <212> DNA
 <213> Homo sapiens

<400> 126
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 cagcccctgt actacctgct cagcctcctc tccctgctgg acatcgtgct ctgcctcact 240
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 tgcttcctcc agatgtacat catgaattgt ttccatagcca tggagtcttg cacattcatg 360
 gtcatggcct atgatcgta tgtagccatc tgccaccac tgagatatcc atcaatcatc 420
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 ctgcccaccc ccatcctttc agcacaactc cgttattgtg gaagaaatgt cattgagaac 540
 tgcacatctg ccaatatgtc tgtttccaga ctctcctgcg atgatgtcac catcaatcac 600
 ctttaccact ttgctggagg ctggactctg ctaggatctg acctcactct tatcttcctc 660
 tcctacacct tcattctgct agctgtgctg agactcaagg cagagggtgc cgtggcaaag 720
 gccctaagca catgtggctc ccacttcctc ctcatcctct tcttcagcac catccttctg 780
 gtttttgtcc tcacacatgt ggctaagaag aaagtctccc ctgatgtgcc agtcttgctc 840
 aatgttctcc accatgtcat tcctgcagcc cttaacccca tcatttacgg ggtgagaacc 900
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<210> 127
 <211> 359
 <212> PRT
 <213> Homo sapiens

<400> 127
 Met Ser Tyr Ser Ile Tyr Lys Ser Thr Val Asn Ile Pro Leu Ser His
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 Gly Val Val His Ser Phe Cys His Asn Met Asn Cys Asn Phe Met His
 20 25 30
 Ile Phe Lys Phe Val Leu Asp Phe Asn Met Lys Asn Val Thr Glu Val
 35 40 45
 Thr Leu Phe Val Leu Lys Gly Phe Thr Asp Asn Leu Glu Leu Gln Thr
 50 55 60
 Ile Phe Phe Phe Leu Phe Leu Ala Ile Tyr Leu Phe Thr Leu Met Gly
 65 70 75 80
 Asn Leu Gly Leu Ile Leu Val Val Ile Arg Asp Ser Gln Leu His Lys
 85 90 95
 Pro Met Tyr Tyr Phe Leu Ser Met Leu Ser Ser Val Asp Ala Cys Tyr
 100 105 110
 Ser Ser Val Ile Thr Pro Asn Met Leu Val Asp Phe Thr Thr Lys Asn
 115 120 125
 Lys Val Ile Ser Phe Leu Gly Cys Val Ala Gln Val Phe Leu Ala Cys

130	135	140
Ser Phe Gly Thr Thr Glu Cys Phe Leu Leu Ala Ala Met Ala Tyr Asp		
145	150	155 160
Arg Tyr Val Ala Ile Tyr Asn Pro Leu Leu Tyr Ser Val Ser Met Ser		
	165	170 175
Pro Arg Val Tyr Met Pro Leu Ile Asn Ala Ser Tyr Val Ala Gly Ile		
	180	185 190
Leu His Ala Thr Ile His Thr Val Ala Thr Phe Ser Leu Ser Phe Cys		
	195	200 205
Gly Ala Asn Glu Ile Arg Arg Val Phe Cys Asp Ile Pro Pro Leu Leu		
	210	215 220
Ala Ile Ser Tyr Ser Asp Thr His Thr Asn Gln Leu Leu Leu Phe Tyr		
	225	230 235 240
Phe Val Gly Ser Ile Glu Leu Val Thr Ile Leu Ile Val Leu Ile Ser		
	245	250 255
Tyr Gly Leu Ile Leu Leu Ala Ile Leu Lys Met Tyr Ser Ala Glu Gly		
	260	265 270
Arg Arg Lys Val Phe Ser Thr Cys Gly Ala His Leu Thr Gly Val Ser		
	275	280 285
Ile Tyr Tyr Gly Thr Ile Leu Phe Met Tyr Val Arg Pro Ser Ser Ser		
	290	295 300
Tyr Ala Ser Asp His Asp Met Ile Val Ser Ile Phe Tyr Thr Ile Val		
	305	310 315 320
Ile Pro Leu Leu Asn Pro Val Ile Tyr Ser Leu Arg Asn Lys Asp Val		
	325	330 335
Lys Asp Ser Met Lys Lys Met Phe Gly Lys Asn Gln Val Ile Asn Lys		
	340	345 350
Val Tyr Phe His Thr Lys Lys		
	355	

<210> 128

<211> 1080

<212> DNA

<213> Homo sapiens

<400> 128

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tctttttgtc ataatatgaa ctgtaacttt atgcatatct tcaagtttgt tctagatttc 120
aacatgaaga atgtcactga agttacctta tttgtactga agggcttcac agacaatctt 180
gaactgcaga ctatcttctt cttcctgttt ctagcaatct acctcttcac tctcatggga 240
aatttaggac tgattttagt ggtcattagg gattcccagc tccacaaacc catgtactat 300
tttctgagta tgttgtcttc tgtggatgcc tgctattcct cagttattac cccaaatatg 360

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cgctatgtag ccatctacaa cctctcctg tattcagtga gcatgtcacc cagagtctac 540
atgccactca tcaatgcttc ctatgttgct ggcattttac atgctactat acatacagtg 600
gctacattta gcctatcctt ctgtggagcc aatgaaatta ggcgtgtctt ttgtgatatc 660
cctcctctcc ttgctatttc ttattctgac actcacacaa accagcttct actcttctac 720
tttgtgggct ctatcgagct ggtcactatc ctgattgttc tgatctccta tggtttgatt 780
ctgttggccca ttctgaagat gtattctgct gaaggaggga gaaaagtctt ctccacatgt 840
ggagctcacc taactggagt gtcaatttat tatgggacaa tcctcttcat gtatgtgaga 900
ccaagttcca gctatgcttc ggaccatgac atgatagtgt caatatttta caccattgtg 960
attcccttgc tgaatcccgt catctacagt ttgaggaaca aagatgtaaa agactcaatg 1020
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<210> 129

<211> 340

<212> PRT

<213> Homo sapiens

<400> 129

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Met Asp Ser Thr Phe Thr Gly Tyr Asn Leu Tyr Asn Leu Gln Val Lys
 1              5              10              15

Thr Glu Met Asp Lys Leu Ser Ser Gly Leu Asp Ile Tyr Arg Asn Pro
      20              25              30

Leu Lys Asn Lys Thr Glu Val Thr Met Phe Ile Leu Thr Gly Phe Thr
      35              40              45

Asp Asp Phe Glu Leu Gln Val Phe Leu Phe Leu Leu Phe Phe Ala Ile
      50              55              60

Tyr Leu Phe Thr Leu Ile Gly Asn Leu Gly Leu Val Val Leu Val Ile
      65              70              75              80

Glu Asp Ser Trp Leu His Asn Pro Met Tyr Tyr Phe Leu Ser Val Leu
      85              90              95

Ser Phe Leu Asp Ala Cys Tyr Ser Thr Val Val Thr Pro Lys Met Leu
      100             105             110

Val Asn Phe Leu Ala Lys Asn Lys Ser Ile Ser Phe Ile Gly Cys Ala
      115             120             125

Thr Gln Met Leu Leu Phe Val Thr Phe Gly Thr Thr Glu Cys Phe Leu
      130             135             140

Leu Ala Ala Met Ala Tyr Asp His Tyr Val Ala Ile Tyr Asn Pro Leu
      145             150             155             160

Leu Tyr Ser Val Ser Met Ser Pro Arg Val Tyr Val Pro Leu Ile Thr
      165             170             175

Ala Ser Tyr Val Ala Gly Ile Leu His Ala Thr Ile His Ile Val Ala
      180             185             190

Thr Phe Ser Leu Ser Phe Cys Gly Ser Asn Glu Ile Arg His Val Phe

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195		200		205
Cys Asp Met Pro Pro Leu Leu Ala Ile Ser Cys Ser Asp Thr His Thr				
210		215		220
Asn Gln Leu Leu Leu Phe Tyr Phe Val Gly Ser Ile Glu Ile Val Thr				
225		230		235
Ile Leu Ile Val Leu Ile Ser Cys Asp Phe Ile Leu Leu Ser Ile Leu				
	245		250	255
Lys Met His Ser Ala Lys Gly Arg Gln Lys Ala Phe Ser Thr Cys Gly				
	260		265	270
Ser His Leu Thr Gly Val Thr Ile Tyr His Gly Thr Ile Leu Val Ser				
	275		280	285
Tyr Met Arg Pro Ser Ser Ser Tyr Ala Ser Asp His Asp Ile Ile Val				
	290		295	300
Ser Ile Phe Tyr Thr Ile Val Ile Pro Lys Leu Asn Pro Ile Ile Tyr				
305		310		315
Ser Leu Arg Asn Lys Glu Val Lys Lys Ala Val Lys Lys Met Leu Lys				
	325		330	335
Leu Val Tyr Lys				
	340			

<210> 130
 <211> 1023
 <212> DNA
 <213> Homo sapiens

<400> 130

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atgtttatat	tgacaggctt	cacagatgat	tttgagctgc	aagtcttcct	atttttacta	180
ttttttgcaa	tctatctctt	taccttgata	ggcaatttag	ggctggttgt	gttggtcatt	240
gaggattcct	ggctccacaa	ccccatgtat	tattttctta	gtgttttata	attcttggat	300
gcttgctatt	ctacagttgt	cactccaaaa	atgttggtca	atttcttggc	aaaaaataaa	360
tccatttcat	ttatcggatg	tgcaacacag	atgcttcttt	ttgttacttt	tggaactaca	420
gaatgttttc	tcttggtgc	aatggcttat	gatcactatg	tagccatcta	caaccctctc	480
ctgtattcag	tgagcatgtc	acccagagtc	tatgtgccac	tcatcactgc	ttcctacggt	540
gctggcattt	tacatgctac	tatacatata	gtggctacat	ttagcctgtc	cttctgtgga	600
tccaatgaaa	ttaggcattg	cttttgatg	atgcctcttc	tccttgctat	ttcttggtct	660
gacactcaca	caaaccagct	tctactcttc	tactttgtgg	gttctattga	gatagtcact	720
atcctgattg	tcctcatttc	ctgtgatttc	attctgttgt	ccattctgaa	gatgcattct	780
gctaagggaa	ggcaaaaggc	cttctctaca	tgtggctctc	acctaactgg	agtgacaatt	840
tatcatggaa	caattctcgt	cagttatatg	agaccaagtt	ccagctatgc	ttcagaccat	900
gacatcatag	tgtcaatatt	ttacacaatt	gtgattccca	agttgaatcc	catcatctat	960
agtttgagga	acaaagaagt	aaaaaaggca	gtgaagaaaa	tgttgaaatt	ggtttacaaa	1020
tga						1023

<210> 131

<211> 311

<212> PRT

<213> Homo sapiens

<400> 131

Met	Gly	Arg	Arg	Asn	Asn	Thr	Asn	Val	Pro	Asp	Phe	Ile	Leu	Thr	Gly	
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Leu	Ser	Asp	Ser	Glu	Glu	Val	Gln	Met	Ala	Leu	Phe	Ile	Leu	Phe	Leu	
		20						25					30			
Leu	Ile	Tyr	Leu	Ile	Thr	Met	Leu	Gly	Asn	Val	Gly	Met	Ile	Leu	Ile	
		35					40					45				
Ile	Arg	Leu	Asp	Leu	Gln	Leu	His	Thr	Pro	Met	Tyr	Phe	Phe	Leu	Thr	
	50					55					60					
His	Leu	Ser	Phe	Ile	Asp	Leu	Ser	Tyr	Ser	Thr	Val	Ile	Thr	Pro	Lys	
65					70					75					80	
Thr	Leu	Ala	Asn	Leu	Leu	Thr	Ser	Asn	Tyr	Ile	Ser	Phe	Met	Gly	Cys	
			85						90					95		
Phe	Ala	Gln	Met	Phe	Phe	Phe	Val	Phe	Leu	Gly	Ala	Ala	Glu	Cys	Phe	
		100						105					110			
Leu	Leu	Ser	Ser	Met	Ala	Tyr	Asp	Arg	Tyr	Val	Ala	Ile	Cys	Ser	Pro	
		115					120					125				
Leu	Arg	Tyr	Pro	Val	Ile	Met	Ser	Lys	Arg	Leu	Cys	Cys	Ala	Leu	Val	
	130					135					140					
Thr	Gly	Pro	Tyr	Val	Ile	Ser	Phe	Ile	Asn	Ser	Phe	Val	Asn	Val	Val	
145					150					155					160	
Trp	Met	Ser	Arg	Leu	His	Phe	Cys	Asp	Ser	Asn	Val	Val	Arg	His	Phe	
			165						170					175		
Phe	Cys	Asp	Thr	Ser	Pro	Ile	Leu	Ala	Leu	Ser	Cys	Met	Asp	Thr	Tyr	
		180						185					190			
Asp	Ile	Glu	Ile	Met	Ile	His	Ile	Leu	Ala	Gly	Ser	Thr	Leu	Met	Val	
	195						200					205				
Ser	Leu	Ile	Thr	Ile	Ser	Ala	Ser	Tyr	Val	Ser	Ile	Leu	Ser	Thr	Ile	
	210					215					220					
Leu	Lys	Ile	Asn	Ser	Thr	Ser	Gly	Lys	Gln	Lys	Ala	Leu	Ser	Thr	Cys	
225					230					235					240	
Ala	Ser	His	Leu	Leu	Gly	Val	Thr	Ile	Phe	Tyr	Gly	Thr	Met	Ile	Phe	
			245						250					255		
Thr	Tyr	Leu	Lys	Pro	Arg	Lys	Ser	Tyr	Ser	Leu	Gly	Arg	Asp	Gln	Val	
		260						265					270			
Ala	Ser	Val	Phe	Tyr	Thr	Ile	Val	Ile	Pro	Met	Leu	Asn	Pro	Leu	Ile	

275

280

285

Tyr Ser Leu Arg Asn Lys Glu Val Lys Asn Ala Leu Ile Arg Val Met
 290 295 300

Gln Arg Arg Gln Asp Ser Arg
 305 310

<210> 132

<211> 936

<212> DNA

<213> Homo sapiens

<400> 132

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 ggcaatgtgg ggatgatatt gataatccgc ctggacctcc agcttcacac tcccatgtat 180
 tttttcetta ctcaactgtc atttattgac ctcaagtact caactgtcat cacacctaaa 240
 accttagcga acttactgac ttccaactat atttccttca tgggctgctt tgcccagatg 300
 ttcttttttg tcttcttggg agctgctgaa tgttttcttc tctcatcaat ggcctatgat 360
 cgctacgtag ctatctgcag tcctctacgt taccaggtta ttatgtccaa aaggctgtgt 420
 tgcgctcttg tcaactgggc ctatgtgatt agctttatca actcctttgt caatgtgggt 480
 tggatgagca gactgcattt ctgcgactca aatgtagttc gtcacttttt ctgcgacacg 540
 tctccaattt tagctctgtc ctgcatggac acatacgaca ttgaaatcat gatacacatt 600
 ttagctgggt ccaccctgat ggtgtccctt atcacaatat ctgcatccta tgtgtccatt 660
 ctctctacca tcctgaaaat taattccact tcaggaaagc agaaagcttt gtctacttgt 720
 gcctctcatc tcttgggagt caccatcttt tatggaacta tgatttttac ttatttaaaa 780
 ccaagaaagt cttattcttt gggaagggat caagtggctt ctgtttttta tactattgtg 840
 attcccatgc tgaatccact catttatagt cttagaaaca aagaagttaa aaatgctctc 900
 attagagtca tgcagagaag acaggactcc aggttaa 936

<210> 133

<211> 316

<212> PRT

<213> Homo sapiens

<400> 133

Met Ala Pro Glu Asn Phe Thr Arg Val Thr Glu Phe Ile Leu Thr Gly
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 Val Ser Ser Cys Pro Glu Leu Gln Ile Pro Leu Phe Leu Val Phe Leu
 20 25 30
 Val Leu Tyr Gly Leu Thr Met Ala Gly Asn Leu Gly Ile Ile Thr Leu
 35 40 45
 Thr Ser Val Asp Ser Arg Leu Gln Thr Pro Met Tyr Phe Phe Leu Gln
 50 55 60
 His Leu Ala Leu Ile Asn Leu Gly Asn Ser Thr Val Ile Ala Pro Lys
 65 70 75 80
 Met Leu Ile Asn Phe Leu Val Lys Lys Lys Thr Thr Ser Phe Tyr Glu
 85 90 95

Cys Ala Thr Gln Leu Gly Gly Phe Leu Phe Phe Ile Val Ser Glu Val
 100 105 110
 Ile Met Leu Ala Leu Met Ala Cys Asp Arg Tyr Val Ala Ile Cys Asn
 115 120 125
 Pro Leu Leu Tyr Met Val Val Val Ser Arg Arg Leu Cys Leu Leu Leu
 130 135 140
 Val Ser Leu Thr Tyr Leu Tyr Gly Phe Ser Thr Ala Ile Val Val Ser
 145 150 155 160
 Ser Tyr Val Phe Ser Val Ser Tyr Cys Ser Ser Asn Ile Ile Asn His
 165 170 175
 Phe Tyr Cys Asp Asn Val Pro Leu Leu Ala Leu Ser Cys Ser Asp Thr
 180 185 190
 Tyr Leu Pro Glu Thr Val Val Phe Ile Ser Ala Ala Thr Asn Val Val
 195 200 205
 Gly Ser Leu Ile Ile Val Leu Val Ser Tyr Phe Asn Ile Val Leu Ser
 210 215 220
 Ile Leu Lys Ile Cys Ser Ser Glu Gly Arg Lys Lys Ala Phe Ser Thr
 225 230 235 240
 Cys Ala Ser His Met Met Ala Val Thr Ile Phe Tyr Gly Thr Leu Leu
 245 250 255
 Phe Met Tyr Val Gln Pro Arg Ser Asn His Ser Leu Asp Thr Asp Asp
 260 265 270
 Lys Met Ala Ser Val Phe Tyr Thr Leu Val Ile Pro Met Leu Asn Pro
 275 280 285
 Leu Ile Tyr Ser Leu Arg Asn Lys Asp Val Lys Thr Ala Leu Gln Arg
 290 295 300
 Phe Met Thr Asn Leu Cys Tyr Ser Phe Lys Thr Met
 305 310 315

<210> 134

<211> 951

<212> DNA

<213> Homo sapiens

<400> 134

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 gggaacctgg gcatcatcac cctcaccagt gttgactctc gacttcaaac ccccatgtac 180
 tttttcctgc aacatctggc tctcattaat cttgggtaact ctactgtcat tgcccctaaa 240
 atgctgatta acttttttagt aaagaagaaa actacctcat tctatgaatg tgccacccaa 300
 ctgggagggt tcttggtcct tattgtatcg gaggtaatca tgctggcctt gatggcctgt 360
 gaccgctatg tggctatttg taaccctctg ctgtacatgg tgggtgggtgc tcggcggtgc 420
 tgccctcctgc tgggtctcct cacatacctc tatggccttt ctacagctat tgtgggtttca 480

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aatgttcctc tgttagcatt atcttgctct gatacttact taccagaaac agttgtcttt 600
atatctgcag caacaaatgt ggttggttcc ttgattatag ttctagtatc ttatttcaat 660
attgttttgt ctattttaaa aatatgttca tcagaaggaa ggaaaaaagc cttttctacc 720
tgtgtttcac atatgatggc agtcacaatt ttttatggga cattgctatt catgtatgtg 780
cagccccgaa gtaaccattc attggatact gatgataaga tggcttctgt gttttacacg 840
ttggtaattc ctatgctgaa tcccttgatc tacagcctga ggaataagga tgtgaagact 900
gctctacaga gattcatgac aaatctgtgc tattccttta aaacaatgta a 951

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<210> 135

<211> 319

<212> PRT

<213> Homo sapiens

<400> 135

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Met Asn His Val Val Lys His Asn His Thr Ala Val Thr Lys Val Thr
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Glu Phe Ile Leu Met Gly Ile Thr Asp Asn Pro Gly Leu Gln Ala Pro
      20              25              30

Leu Phe Gly Leu Phe Leu Ile Ile Tyr Leu Val Thr Val Ile Gly Asn
      35              40              45

Leu Gly Met Val Ile Leu Thr Tyr Leu Asp Ser Lys Leu His Thr Pro
      50              55              60

Met Tyr Phe Phe Leu Arg His Leu Ser Ile Thr Asp Leu Gly Tyr Ser
      65              70              75              80

Thr Val Ile Ala Pro Lys Met Leu Val Asn Phe Ile Val His Lys Asn
      85              90              95

Thr Ile Ser Tyr Asn Trp Tyr Ala Thr Gln Leu Ala Phe Phe Glu Ile
      100              105              110

Phe Ile Ile Ser Glu Leu Phe Ile Leu Ser Ala Met Ala Tyr Asp Arg
      115              120              125

Tyr Val Ala Ile Cys Lys Pro Leu Leu Tyr Val Ile Ile Met Ala Glu
      130              135              140

Lys Val Leu Trp Val Leu Val Ile Val Pro Tyr Leu Tyr Ser Thr Phe
      145              150              155              160

Val Ser Leu Phe Leu Thr Ile Lys Leu Phe Lys Leu Ser Phe Cys Gly
      165              170              175

Ser Asn Ile Ile Ser Tyr Phe Tyr Cys Asp Cys Ile Pro Leu Met Ser
      180              185              190

Ile Leu Cys Ser Asp Thr Asn Glu Leu Glu Leu Ile Ile Leu Ile Phe
      195              200              205

Ser Gly Cys Asn Leu Leu Phe Ser Leu Ser Ile Val Leu Ile Ser Tyr
      210              215              220

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Met Phe Ile Leu Val Ala Ile Leu Arg Met Asn Ser Arg Lys Gly Arg
 225 230 235 240

Tyr Lys Ala Phe Ser Thr Cys Ser Ser His Leu Thr Val Val Ile Met
 245 250 255

Phe Tyr Gly Thr Leu Leu Phe Ile Tyr Leu Gln Pro Lys Ser Ser His
 260 265 270

Thr Leu Ala Ile Asp Lys Met Ala Ser Val Phe Tyr Thr Leu Leu Ile
 275 280 285

Pro Met Leu Asn Pro Leu Ile Tyr Ser Leu Arg Asn Lys Glu Val Lys
 290 295 300

Asp Ala Leu Lys Arg Thr Leu Thr Asn Arg Phe Lys Ile Pro Ile
 305 310 315

<210> 136
 <211> 960
 <212> DNA
 <213> Homo sapiens

<400> 136

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tatctgggtca	cagtgatagg	caatctgggc	atgggttatct	tgacctactt	ggactccaag	180
ctacacaccc	ccatgtactt	tttccttaga	catttggtcaa	tcactgatct	tggttactcc	240
actgtcattg	ccccgaagat	gttagtaaac	ttcatagtg	acaaaaacac	aatttcttac	300
aattgggtatg	ccactcagct	agcattcttt	gagattttca	tcattctctga	gctctttatt	360
ctatcagcaa	tggcctatga	tcgctacgta	gccatctgta	aacctcttct	gtacgtgatc	420
atcatggcag	agaaagtact	ttgggtgctg	gtaattgttc	cctatctcta	tagcacgttt	480
gtgtcactat	ttctcacaat	taagttatct	aaactgtcct	tctgtggctc	aaacataatc	540
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tcagtgtttt	ataccctgtt	gattcctatg	ctgaatccgt	tgatctacag	cctaaggaac	900
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<210> 137
 <211> 312
 <212> PRT
 <213> Homo sapiens

<400> 137

Met	Glu	Gln	His	Asn	Leu	Thr	Thr	Val	Asn	Glu	Phe	Ile	Leu	Thr	Gly
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Ile	Thr	Asp	Ile	Ala	Glu	Leu	Gln	Ala	Pro	Leu	Phe	Ala	Leu	Phe	Leu
		20						25					30		
Met	Ile	Tyr	Val	Ile	Ser	Val	Met	Gly	Asn	Leu	Gly	Met	Ile	Val	Leu

35					40					45						
Thr	Lys	Leu	Asp	Ser	Arg	Leu	Gln	Thr	Pro	Met	Tyr	Phe	Phe	Leu	Arg	
50					55					60						
His	Leu	Ala	Phe	Met	Asp	Leu	Gly	Tyr	Ser	Thr	Thr	Val	Gly	Pro	Lys	
65					70					75					80	
Met	Leu	Val	Asn	Phe	Val	Val	Asp	Lys	Asn	Ile	Ile	Ser	Tyr	Tyr	Phe	
85					90					95						
Cys	Ala	Thr	Gln	Leu	Ala	Phe	Phe	Leu	Val	Phe	Ile	Gly	Ser	Glu	Leu	
100					105					110						
Phe	Ile	Leu	Ser	Ala	Met	Ser	Tyr	Asp	Leu	Tyr	Val	Ala	Ile	Cys	Asn	
115					120					125						
Pro	Leu	Leu	Tyr	Thr	Val	Ile	Met	Ser	Arg	Arg	Val	Cys	Gln	Val	Leu	
130					135					140						
Val	Ala	Ile	Pro	Tyr	Leu	Tyr	Cys	Thr	Phe	Ile	Ser	Leu	Leu	Val	Thr	
145					150					155					160	
Ile	Lys	Ile	Phe	Thr	Leu	Ser	Phe	Cys	Gly	Tyr	Asn	Val	Ile	Ser	His	
165					170					175						
Phe	Tyr	Cys	Asp	Ser	Leu	Pro	Leu	Leu	Pro	Leu	Leu	Cys	Ser	Asn	Thr	
180					185					190						
His	Glu	Ile	Glu	Leu	Ile	Ile	Leu	Ile	Phe	Ala	Ala	Ile	Asp	Leu	Ile	
195					200					205						
Ser	Ser	Leu	Leu	Ile	Val	Leu	Leu	Ser	Tyr	Leu	Leu	Ile	Leu	Val	Ala	
210					215					220						
Ile	Leu	Arg	Met	Asn	Ser	Ala	Gly	Arg	Gln	Lys	Ala	Phe	Ser	Thr	Cys	
225					230					235					240	
Gly	Ala	His	Leu	Thr	Val	Val	Ile	Val	Phe	Tyr	Gly	Thr	Leu	Leu	Phe	
245					250					255						
Met	Tyr	Val	Gln	Pro	Lys	Ser	Ser	His	Ser	Phe	Asp	Thr	Asp	Lys	Val	
260					265					270						
Ala	Ser	Ile	Phe	Tyr	Thr	Leu	Val	Ile	Pro	Met	Leu	Asn	Pro	Leu	Ile	
275					280					285						
Tyr	Ser	Leu	Arg	Asn	Lys	Asp	Val	Lys	Tyr	Ala	Leu	Arg	Arg	Thr	Trp	
290					295					300						
Asn	Asn	Leu	Cys	Asn	Ile	Phe	Val									
305					310											

<210> 138
 <211> 939
 <212> DNA

<213> Homo sapiens

<400> 138

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ggcaatttgg gcatgattgt cctcaccaag ttggactcca ggttgcaaac ccctatgtac 180
ttttttctca gacatctggc ttcatggat cttggttatt caacaactgt gggacccaaa 240
atgttagtaa attttgttgt ggataagaat ataatttctt attatttttg tgcaacacag 300
ctagctttct ttcttggtgt cattggtagt gaacttttta ttctctcagc catgtcctac 360
gacctctatg tggccatctg taaccctctg ctatacacag taatcatgtc acgaagggtg 420
tgtcagggtg tggtagcaat cccttacctc tattgcacat tcatttctct tctagtccac 480
ataaagattt ttactttatc cttctgtggc tacaacgtca ttagtcattt ctactgtgac 540
agtctccctt tgttaccctt gctttgttca aatacacatg aaattgaatt gataattctg 600
atctttgcag ctattgattt gatttcatct cttctgatag ttcttttata ttacctgtc 660
atcctttagt ccattctcag gatgaattct gctggcagac aaaaggcttt ttctacctgt 720
ggagcccacc tgacagtggg catagtgttc tatgggactt tgcttttcat gtacgtgcag 780
cccaagtcca gtcattcctt tgacactgat aaagtggctt ccatatttta caccctgggt 840
atccccatgt tgaatccctt gatctatagt ttacgaaaca aagatgtaaa atatgcccta 900
cgaaggacat ggaataactt atgtaatat tttgtttaa 939
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<210> 139

<211> 337

<212> PRT

<213> Homo sapiens

<400> 139

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Met Glu Gly Lys Asn Gln Thr Asn Ile Ser Glu Phe Leu Leu Leu Gly
 1             5             10             15

Phe Ser Ser Trp Gln Gln Gln Gln Val Leu Leu Phe Ala Leu Phe Leu
20             25             30

Cys Leu Tyr Leu Thr Gly Leu Phe Gly Asn Leu Leu Ile Leu Leu Ala
35             40             45

Ile Gly Ser Asp His Cys Leu His Thr Pro Met Tyr Phe Phe Leu Ala
50             55             60

Asn Leu Ser Leu Val Asp Leu Cys Leu Pro Ser Ala Thr Val Pro Lys
65             70             75             80

Met Leu Leu Asn Ile Gln Thr Gln Thr Gln Thr Ile Ser Tyr Pro Gly
85             90             95

Cys Leu Ala Gln Met Tyr Phe Cys Met Met Phe Ala Asn Met Asp Asn
100            105            110

Phe Leu Leu Thr Val Met Ala Tyr Asp Arg Tyr Val Ala Ile Cys His
115            120            125

Pro Leu His Tyr Ser Thr Ile Met Ala Leu Arg Leu Cys Ala Ser Leu
130            135            140

Val Ala Ala Pro Trp Val Ile Ala Ile Leu Asn Pro Leu Leu His Thr
145            150            155            160
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ok

Leu Met Met Ala His Leu His Phe Cys Ser Asp Asn Val Ile His His
165 170 175

Phe Phe Cys Asp Ile Asn Ser Leu Leu Pro Leu Ser Cys Ser Asp Thr
180 185 190

Ser Leu Asn Gln Leu Ser Val Leu Ala Thr Val Gly Leu Ile Phe Val
195 200 205

Val Pro Ser Val Cys Ile Leu Val Ser Tyr Ile Leu Ile Val Ser Ala
210 215 220

Val Met Lys Val Pro Ser Ala Gln Gly Lys Leu Lys Ala Phe Ser Thr
225 230 235 240

Cys Gly Ser His Leu Ala Leu Val Ile Leu Phe Tyr Gly Ala Asn Thr
245 250 255

Gly Val Tyr Met Ser Pro Leu Ser Asn His Ser Thr Glu Lys Asp Ser
260 265 270

Ala Ala Ser Val Ile Phe Met Val Val Ala Pro Val Leu Asn Pro Phe
275 280 285

Ile Tyr Ser Leu Arg Asn Asn Glu Leu Lys Gly Thr Leu Lys Lys Thr
290 295 300

Leu Ser Arg Pro Gly Ala Val Ala His Ala Cys Asn Pro Ser Thr Leu
305 310 315 320

Gly Gly Arg Gly Gly Trp Ile Met Arg Ser Gly Asp Arg Asp His Pro
325 330 335

Gly

<210> 140
<211> 1014
<212> DNA
<213> Homo sapiens

<400> 140
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caacaacagc aggtgctact ctttgcaactt ttctgtgtgc tctatttaac agggctgttt 120
ggaaacttac tcatcttgct ggccattggc tcggatcact gccttcacac acccatgtat 180
ttcttccttg ccaatctgtc cttggttagac ctctgccttc cctcagccac agtccccaag 240
atgctactga acatccaaac ccaaacccaa accatctcct atcccggctg cctggctcag 300
atgtatttct gtatgatgtt tgccaatatg gacaattttc ttctcacagt gatggcatat 360
gaccgttacg tggccatctg tcacccttta cattactcca ccattatggc cctgcgcctc 420
tgtgcctctc tggtagctgc accttgggtc attgccattt tgaaccctct cttgcacact 480
cttatgatgg cccatctgca cttctgctct gataatgtta tccaccattt cttctgtgat 540
atcaactctc tcttccctct gtctgttcc gacaccagtc ttaatcagtt gagtgttctg 600
gctacgggtg ggctgatctt tgttggtacct tcagtgtgta tcttgggtat ctatatactc 660
attgtttctg ctgtgatgaa agtcccttct gcccaaggaa aactcaaggc tttctctacc 720
tgtggatctc accttgctt ggtcattctt ttctatggag caaacacagg ggtctatatg 780
agcccccttat ccaatcactc tactgaaaaa gactcagccg catcagtcac ttttatgggt 840

gtagcacctg tgttgaatcc attcatttac agtttaagaa acaatgaact gaaggggact 900
 ttaaaaaaga ccctaagccg gccggggcgcg gtggctcacg cctgtaatcc cagcactttg 960
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<210> 141
 <211> 314
 <212> PRT
 <213> Homo sapiens

<400> 141
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 Asn Ala Pro Glu Leu Gln Val Pro Leu Phe Ile Met Phe Thr Leu Ile
 20 25 30
 Tyr Leu Ile Thr Leu Thr Gly Asn Leu Gly Met Ile Ile Leu Ile Leu
 35 40 45
 Leu Asp Ser His Leu His Thr Pro Met Tyr Phe Phe Leu Ser Asn Leu
 50 55 60
 Ser Leu Ala Gly Ile Gly Tyr Ser Ser Ala Val Thr Pro Lys Val Leu
 65 70 75 80
 Thr Gly Leu Leu Ile Glu Asp Lys Ala Ile Ser Tyr Ser Ala Cys Ala
 85 90 95
 Ala Gln Met Phe Phe Cys Ala Val Phe Ala Thr Val Glu Asn Tyr Leu
 100 105 110
 Leu Ser Ser Met Ala Tyr Asp Arg Tyr Ala Ala Val Cys Asn Pro Leu
 115 120 125
 His Tyr Thr Thr Thr Met Thr Thr Arg Val Cys Ala Cys Leu Ala Ile
 130 135 140
 Gly Cys Tyr Val Ile Gly Phe Leu Asn Ala Ser Ile Gln Ile Gly Asp
 145 150 155 160
 Thr Phe Arg Leu Ser Phe Cys Met Ser Asn Val Ile His His Phe Phe
 165 170 175
 Cys Asp Lys Pro Ala Val Ile Thr Leu Thr Cys Ser Glu Lys His Ile
 180 185 190
 Ser Glu Leu Ile Leu Val Leu Ile Ser Ser Phe Asn Val Phe Phe Ala
 195 200 205
 Leu Leu Val Thr Leu Ile Ser Tyr Leu Phe Ile Leu Ile Thr Ile Leu
 210 215 220
 Lys Arg His Thr Gly Lys Gly Tyr Gln Lys Pro Leu Ser Thr Cys Gly
 225 230 235 240
 Ser His Leu Ile Ala Ile Phe Leu Phe Tyr Ile Thr Val Ile Ile Met

Gln Leu Ser Leu Phe Asp Ile Gly Cys Pro Met Val Thr Ile Pro Lys
 65 70 75 80
 Met Ala Ser Asp Phe Leu Arg Gly Glu Gly Ala Thr Ser Tyr Gly Gly
 85 90 95
 Gly Ala Ala Gln Ile Phe Phe Leu Thr Leu Met Gly Val Ala Glu Gly
 100 105 110
 Val Leu Leu Val Leu Met Ser Tyr Asp Arg Tyr Val Ala Val Cys Gln
 115 120 125
 Pro Leu Gln Tyr Pro Val Leu Met Arg Arg Gln Val Cys Leu Leu Met
 130 135 140
 Met Gly Ser Ser Trp Val Val Gly Val Leu Asn Ala Ser Ile Gln Thr
 145 150 155 160
 Ser Ile Thr Leu His Phe Pro Tyr Cys Ala Ser Arg Ile Val Asp His
 165 170 175
 Phe Phe Cys Glu Val Pro Ala Leu Leu Lys Leu Ser Cys Ala Asp Thr
 180 185 190
 Cys Ala Tyr Glu Met Ala Leu Ser Thr Ser Gly Val Leu Ile Leu Met
 195 200 205
 Leu Pro Leu Ser Leu Ile Ala Thr Ser Tyr Gly His Val Leu Gln Ala
 210 215 220
 Val Leu Ser Met Arg Ser Glu Glu Ala Arg His Lys Ala Val Thr Thr
 225 230 235 240
 Cys Ser Ser His Ile Thr Val Val Gly Leu Phe Tyr Gly Ala Ala Val
 245 250 255
 Phe Met Tyr Met Val Pro Cys Ala Tyr His Ser Pro Gln Gln Asp Asn
 260 265 270
 Val Val Ser Leu Phe Tyr Ser Leu Val Thr Pro Thr Leu Asn Pro Leu
 275 280 285
 Ile Tyr Ser Leu Arg Asn Pro Glu Val Trp Met Ala Leu Val Lys Val
 290 295 300
 Leu Ser Arg Ala Gly Leu Arg Gln Met Cys
 305 310

<210> 144

<211> 945

<212> DNA

<213> Homo sapiens

<400> 144

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ggcaacaccg ttcttctctt cttgatccgt gtggactccc ggctccacac acccatgtac 180
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atggcatcag actttctgcg gggagaagggt gccacctcct atggagggtgg tgcagctcaa 300
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gaccgttatg ttgctgtgtg ccagccctg cagtatcctg tacttatgag acgccaggta 420
tgtctgctga tgatgggctc ctcttgggtg gtaggtgtgc tcaacgcctc catccagacc 480
tccatcacc tgcattttcc ctactgtgcc tcccgtattg tggatcactt cttctgtgag 540
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acctcagggg tgctgaccc aatgtccct ctttccctca tcgccacctc ctacggccac 660
gtgttgccagg ctgttctaag catgcgctca gaggaggcca gacacaaggc tgtcaccacc 720
tgctcctcgc acatcacggt agtggggctc ttttatgggt cgcgcgtgtt catgtacatg 780
gtgccttgcg cctaccacag tccacagcag gataacgtgg tttccctctt ctatagcctt 840
gtcaccctca cactcaaccc ccttatctac agtctgagga atccggagggt gtggatggct 900
ttgggtcaaag tgcttagcag agctggactc aggcaaatgt gctga 945

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<210> 145
 <211> 331
 <212> PRT
 <213> Homo sapiens

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<400> 145
Met Ser Pro Asp Gly Asn His Ser Ser Asp Pro Thr Glu Phe Val Leu
  1             5             10             15

Ala Gly Leu Pro Asn Leu Asn Ser Ala Arg Val Glu Leu Phe Ser Val
      20             25             30

Phe Leu Leu Val Tyr Leu Leu Asn Leu Thr Gly Asn Val Leu Ile Val
      35             40             45

Gly Val Val Arg Ala Asp Thr Arg Leu Gln Thr Pro Met Tyr Phe Phe
      50             55             60

Leu Gly Asn Leu Ser Cys Leu Glu Ile Leu Leu Thr Ser Val Ile Ile
      65             70             75             80

Pro Lys Met Leu Ser Asn Phe Leu Ser Arg Gln His Thr Ile Ser Phe
      85             90             95

Ala Ala Cys Ile Thr Gln Phe Tyr Phe Tyr Phe Phe Leu Gly Ala Ser
      100            105            110

Glu Phe Leu Leu Leu Ala Val Met Ser Ala Asp Arg Tyr Leu Ala Ile
      115            120            125

Cys His Pro Leu Arg Tyr Pro Leu Leu Met Ser Gly Ala Val Cys Phe
      130            135            140

Arg Val Ala Leu Ala Cys Trp Val Gly Gly Leu Val Pro Val Leu Gly
      145            150            155            160

Pro Thr Val Ala Val Ala Leu Leu Pro Phe Cys Lys Gln Gly Ala Val
      165            170            175

Val Gln His Phe Phe Cys Asp Ser Gly Pro Leu Leu Arg Leu Ala Cys
      180            185            190

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Thr Asn Thr Lys Lys Leu Glu Glu Thr Asp Phe Val Leu Ala Ser Leu
 195 200 205
 Val Ile Val Ser Ser Leu Leu Ile Thr Ala Val Ser Tyr Gly Leu Ile
 210 215 220
 Val Leu Ala Val Leu Ser Ile Pro Ser Ala Ser Gly Arg Gln Lys Ala
 225 230 235 240
 Phe Ser Thr Cys Thr Ser His Leu Ile Val Val Thr Leu Phe Tyr Gly
 245 250 255
 Ser Ala Ile Phe Leu Tyr Val Arg Pro Ser Gln Ser Gly Ser Val Asp
 260 265 270
 Thr Asn Trp Ala Val Thr Val Ile Thr Thr Phe Val Thr Pro Leu Leu
 275 280 285
 Asn Pro Phe Ile Tyr Ala Leu Arg Asn Glu Gln Val Lys Glu Ala Leu
 290 295 300
 Lys Asp Met Phe Arg Lys Val Val Ala Gly Val Leu Gly Asn Leu Leu
 305 310 315 320
 Leu Asp Lys Cys Leu Ser Glu Lys Ala Val Lys
 325 330

<210> 146
 <211> 996
 <212> DNA
 <213> Homo sapiens

<400> 146
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 aatctcaaca gcgcaagagt ggaattattt tctgtgtttc ttcttgtcta tctcctgaat 120
 ctgacaggca atgtgttgat tgtgggggtg gtaagggtg atactcgact acagaccct 180
 atgtacttct ttctgggtaa cctgtcctgc cttagagatac tgctcacttc tgctcatcatt 240
 ccaaagatgc tgagcaattt cctctcaagg caacacacta tttcctttgc tgcattgtatc 300
 acccaattct atttctactt ctttctcggg gcctccgagt tcttactgtt ggctgtcatg 360
 tctgcggatc gctacctggc catctgtcat cctctgcgct accccttgct catgagtggg 420
 gctgtgtgct ttctgtgtggc cttggcctgc tgggtggggg gactcgtccc tgtgcttggg 480
 cccacagtgg ctgtggcctt gcttcctttc tgtaagcagg gtgctgtggg acagcacttc 540
 ttctgcgaca gtggcccact gctccgctg gcttgacca acaccaagaa gctggaggag 600
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 tacggcctca ttgtgctggc agtcctgagc atccccctct cttcaggccg tcagaaggcc 720
 ttctctacct gtacctccca cttgatagtg gtgacctct tctatggaag tgccattttt 780
 ctctatgtgc ggccatcgca gagtgtttct gtggacacta actgggcagt gacagtaata 840
 acgacatttg tgacaccact gttgaatcca ttcattctatg ccttacgtaa tgagcaagtc 900
 aaggaagctt tgaaggacat gtttaggaag gtagtggcag gcgttttagg gaatctttta 960
 cttgataaat gtctcagtga gaaagcagta aagtaa 996

<210> 147
 <211> 319
 <212> PRT

<213> Homo sapiens

<400> 147

Met	Thr	Pro	Gly	Glu	Leu	Ala	Leu	Ala	Ser	Gly	Asn	His	Thr	Pro	Val
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Thr	Lys	Phe	Ile	Leu	Gln	Gly	Phe	Ser	Asn	Tyr	Pro	Asp	Leu	Gln	Glu
			20					25					30		
Leu	Leu	Phe	Gly	Ala	Ile	Leu	Leu	Ile	Tyr	Ala	Ile	Thr	Val	Val	Gly
		35					40					45			
Asn	Leu	Gly	Met	Met	Ala	Leu	Ile	Phe	Thr	Asp	Ser	His	Leu	Gln	Ser
	50					55					60				
Pro	Met	Tyr	Phe	Phe	Leu	Asn	Val	Leu	Ser	Phe	Leu	Asp	Ile	Cys	Tyr
65					70					75				80	
Ser	Ser	Val	Val	Thr	Pro	Lys	Leu	Leu	Val	Asn	Phe	Leu	Val	Ser	Asp
				85					90					95	
Lys	Ser	Ile	Ser	Phe	Glu	Gly	Cys	Val	Val	Gln	Leu	Ala	Phe	Phe	Val
			100					105					110		
Val	His	Val	Thr	Ala	Glu	Ser	Phe	Leu	Leu	Ala	Ser	Met	Ala	Tyr	Asp
		115					120					125			
Arg	Phe	Leu	Ala	Ile	Cys	Gln	Pro	Leu	His	Tyr	Gly	Ser	Ile	Met	Thr
	130					135					140				
Arg	Gly	Thr	Cys	Leu	Gln	Leu	Val	Ala	Val	Ser	Tyr	Ala	Phe	Gly	Gly
145					150					155				160	
Ala	Asn	Ser	Ala	Ile	Gln	Thr	Gly	Asn	Val	Phe	Ala	Leu	Pro	Phe	Cys
				165					170					175	
Gly	Pro	Asn	Gln	Leu	Thr	His	Tyr	Tyr	Cys	Asp	Ile	Pro	Pro	Leu	Leu
			180					185					190		
His	Leu	Ala	Cys	Ala	Asn	Thr	Ala	Thr	Ala	Arg	Val	Val	Leu	Tyr	Val
	195						200					205			
Phe	Ser	Ala	Leu	Val	Thr	Leu	Leu	Pro	Ala	Ala	Val	Ile	Leu	Thr	Ser
	210					215					220				
Tyr	Cys	Leu	Val	Leu	Val	Ala	Ile	Gly	Arg	Met	Arg	Ser	Val	Ala	Gly
225					230					235				240	
Arg	Glu	Lys	Asp	Leu	Ser	Thr	Cys	Ala	Ser	His	Phe	Leu	Ala	Ile	Ala
				245					250					255	
Ile	Phe	Tyr	Gly	Thr	Val	Val	Phe	Thr	Tyr	Val	Gln	Pro	His	Gly	Ser
			260					265					270		
Thr	Asn	Asn	Thr	Asn	Gly	Gln	Val	Val	Ser	Val	Phe	Tyr	Thr	Ile	Ile
	275					280						285			

Ile Pro Met Leu Asn Pro Phe Ile Tyr Ser Leu Arg Asn Lys Glu Val
 290 295 300

Lys Gly Ala Leu Gln Arg Lys Leu Gln Val Asn Ile Phe Pro Gly
 305 310 315

<210> 148
 <211> 960
 <212> DNA
 <213> Homo sapiens

<400> 148
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 ttgcagggat tctccaatta tccagacctc caggagcttc tcttcggagc catcctgctc 120
 atctatgcca taacagtggg gggcaacttg ggaatgatgg cactcatctt cacagactcc 180
 catctccaaa gcccaatgta tttcttctct aatgtcctct cgtttcttga tatttggtac 240
 tcttctgtgg tcacacctaa gctcttggtc aacttctctg tctctgacaa gtccatctct 300
 tttgagggct gtgtggtcca gctcgccctt tttgtagtgc atgtgacagc tgagagcttc 360
 ctgctggcct ccatggccta tgaccgcttc ctagccatct gtcaaccctt ccattatggt 420
 tctatcatga ccagggggac ctgtctccag ctggtagctg tgtcctatgc atttgggtga 480
 gccaaactccg ctatccagac tggaaatgtc tttgccctgc ctttctgtgg gccaaccag 540
 ctaacacact actactgtga cataccaccc cttctccacc tggcttgtgc caacacagcc 600
 acagcaagag tggctctcta tgtcttttct gctctggtca cccttctgcc tgetgcagtc 660
 attctcacct cctactgctt ggtcttggtg gccattggga ggatgcgctc agtagcaggg 720
 agggagaagg acctctccac ttgtgcctcc cactttctgg ccattgccat tttctatggc 780
 actgtggttt tcacctatgt tcagccccc atgctcaatc ctttcatcta tagcctccgc 900
 aacaaggagg tgaagggcgc tctgcagagg aagcttcagg tcaacatctt tcccggctga 960

<210> 149
 <211> 309
 <212> PRT
 <213> Homo sapiens

<400> 149
 Met Glu Gly Ile Asn Lys Thr Ala Lys Met Gln Phe Phe Phe Arg Pro
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 Phe Ser Pro Asp Pro Glu Val Gln Met Leu Ile Phe Val Val Phe Leu
 20 25 30
 Met Met Tyr Leu Thr Ser Leu Gly Gly Asn Ala Thr Ile Ala Val Ile
 35 40 45
 Val Gln Ile Asn His Ser Leu His Thr Pro Met Tyr Phe Phe Leu Ala
 50 55 60
 Asn Leu Ala Val Leu Glu Ile Phe Tyr Thr Ser Ser Ile Thr Pro Leu
 65 70 75 80
 Ala Leu Ala Asn Leu Leu Ser Met Gly Lys Thr Pro Val Ser Ile Thr
 85 90 95
 Gly Cys Gly Thr Gln Met Phe Phe Phe Val Phe Leu Gly Gly Ala Asp
 100 105 110

Cys Val Leu Leu Val Val Met Ala Tyr Asp Arg Phe Ile Ala Ile Cys
 115 120 125
 His Pro Leu Arg Tyr Arg Leu Ile Met Ser Trp Ser Leu Cys Val Glu
 130 135 140
 Leu Leu Val Gly Ser Leu Val Leu Gly Phe Leu Leu Ser Leu Pro Leu
 145 150 155 160
 Thr Ile Leu Ile Phe His Leu Pro Phe Cys His Asn Asp Glu Ile Tyr
 165 170 175
 His Phe Tyr Cys Asp Met Pro Ala Val Met Arg Leu Ala Cys Ala Asp
 180 185 190
 Thr Arg Val His Lys Thr Ala Leu Tyr Ile Ile Ser Phe Ile Val Leu
 195 200 205
 Ser Ile Pro Leu Ser Leu Ile Ser Ile Ser Tyr Val Phe Ile Val Val
 210 215 220
 Ala Ile Leu Arg Ile Arg Ser Ala Glu Gly Arg Gln Gln Ala Tyr Ser
 225 230 235 240
 Thr Cys Ser Ser His Ile Leu Val Val Leu Leu Gln Tyr Gly Cys Thr
 245 250 255
 Ser Phe Ile Tyr Leu Ser Pro Ser Ser Tyr Ser Pro Glu Met Gly
 260 265 270
 Arg Val Val Ser Val Ala Tyr Thr Phe Ile Thr Pro Ile Leu Asn Pro
 275 280 285
 Leu Ile Tyr Ser Leu Arg Asn Lys Glu Leu Lys Asp Ala Leu Arg Lys
 290 295 300
 Ala Leu Arg Lys Phe
 305

<210> 150
 <211> 930
 <212> DNA
 <213> Homo sapiens

<400> 150
 atggaaggaa taaataaaac tgcaaagatg cagtttttct ttcgtccatt ctcacctgac 60
 cctgagggtcc agatgctgat ttttggtggtc ttctgatga tgtatctgac cagcctcggt 120
 ggaaatgcta caattgcagt cattgttcag atcaatcatt ccctccacac ccccatgtac 180
 tttttcctgg ctaatctggc agttctagaa atcttctata catcttccat caccctattg 240
 gccttggtcaa acctcctttc aatgggcaaa actcctgttt ccatcacggg atgtggcacc 300
 cagatgtttt tctttgtctt cttgggtggg gctgattgtg tcctgctggt agtcatggct 360
 tatgaccggt ttatagcgat ctgtcaccct ctgcgataca ggctcatcat gagctgggtcc 420
 ttgtgtgtgg agctgctggt aggcctcctt gtgctggggt tcctgttgct actgccactc 480
 accattttta tcttccatct cccattctgc cacaatgatg agatctacca cttctactgt 540
 gacatgcctg cagtcatgct cctggcttgt gcagacacac gcgttcacaa gactgctctg 600

tatatcatca gcttcacgt ccttagcatc cccctctcat tgatctccat ctctatgtc 660
 ttcacgtgg tagccatttt acggatccgg tcagcagaag ggcgccagca agcctactct 720
 acctgctctt ctcacatctt agtggctctc ctgcagtatg gctgcaccag ctttatatac 780
 ttgtcccca gttccagcta ctctcctgag atggggccggg tggatatctgt ggcctacaca 840
 tttatcactc ccattttaaa ccccttgatc tatagtttga ggaacaagga actgaaagat 900
 gccctaagga aagcattgag aaaattctag 930

<210> 151
 <211> 409
 <212> PRT
 <213> Homo sapiens

<400> 151
 Met Gly Val Lys Asn His Ser Thr Val Thr Glu Phe Leu Leu Ser Gly
 1 5 10 15
 Leu Thr Glu Gln Ala Glu Leu Gln Leu Pro Leu Phe Cys Leu Phe Leu
 20 25 30
 Gly Ile Tyr Thr Val Thr Val Val Gly Asn Leu Ser Met Ile Ser Ile
 35 40 45
 Ile Arg Leu Asn Arg Gln Leu His Thr Pro Met Tyr Tyr Phe Leu Ser
 50 55 60
 Ser Leu Ser Phe Leu Asp Phe Cys Tyr Ser Ser Val Ile Thr Pro Lys
 65 70 75 80
 Met Met Lys Leu Trp Met Glu Ser His Leu Ile Val Pro Glu Thr Arg
 85 90 95
 Pro Ser Pro Arg Met Met Ser Asn Gln Thr Leu Val Thr Glu Phe Ile
 100 105 110
 Leu Gln Gly Phe Ser Glu His Pro Glu Tyr Arg Val Phe Leu Phe Ser
 115 120 125
 Cys Phe Leu Phe Leu Tyr Ser Gly Ala Leu Thr Gly Asn Val Leu Ile
 130 135 140
 Thr Leu Ala Ile Thr Phe Asn Pro Gly Leu His Ala Pro Met Tyr Phe
 145 150 155 160
 Phe Leu Leu Asn Leu Ala Thr Met Asp Ile Ile Cys Thr Ser Ser Ile
 165 170 175
 Met Pro Lys Ala Leu Ala Ser Leu Val Ser Glu Glu Ser Ser Ile Ser
 180 185 190
 Tyr Gly Gly Cys Met Ala Gln Leu Tyr Phe Leu Thr Trp Ala Ala Ser
 195 200 205
 Ser Glu Leu Leu Leu Leu Thr Val Met Ala Tyr Asp Arg Tyr Ala Ala
 210 215 220
 Ile Cys His Pro Leu His Tyr Ser Ser Met Met Ser Lys Val Phe Cys

225 230 235 240
 Ser Gly Leu Ala Thr Ala Val Trp Leu Leu Cys Ala Val Asn Thr Ala
 245 250 255
 Ile His Thr Gly Leu Met Leu Arg Leu Asp Phe Cys Gly Pro Asn Val
 260 265 270
 Ile Ile His Phe Phe Cys Glu Val Pro Pro Leu Leu Leu Leu Ser Cys
 275 280 285
 Ser Ser Thr Tyr Val Asn Gly Val Met Ile Val Leu Ala Asp Ala Phe
 290 295 300
 Tyr Gly Ile Val Asn Phe Leu Met Thr Ile Ala Ser Tyr Gly Phe Ile
 305 310 315 320
 Val Ser Ser Ile Leu Lys Val Lys Thr Ala Trp Gly Arg Gln Lys Ala
 325 330 335
 Phe Ser Thr Cys Ser Ser His Leu Thr Val Val Cys Met Tyr Tyr Thr
 340 345 350
 Ala Val Phe Tyr Ala Tyr Ile Ser Pro Val Ser Gly Tyr Ser Ala Gly
 355 360 365
 Lys Ser Lys Leu Ala Gly Leu Leu Tyr Thr Val Leu Ser Pro Thr Leu
 370 375 380
 Asn Pro Leu Ile Tyr Thr Leu Arg Asn Lys Glu Val Lys Ala Ala Leu
 385 390 395 400
 Arg Lys Leu Phe Pro Phe Phe Arg Asn
 405

<210> 152
 <211> 987
 <212> DNA
 <213> Homo sapiens

<400> 152
 atgaagctgt ggatggagag tcacctgata gtcccagaaa cccgtcccag cccaaggatg 60
 atgagtaacc agacgttggg aaccgagttc atcctgcagg gcttttcgga gcaccagaa 120
 taccgggtgt tcttattcag ctgtttcctc ttccctctact ctggggccct cacaggtaat 180
 gtccatca ccttggccat cacgttcaac cctgggctcc acgtcctat gtactttttc 240
 ttactcaact tggctactat ggacattatc tgcacctctt ccatcatgcc caaggcgctg 300
 gccagtctgg tgcggaaga gagtccatc tctacgggg gctgcatggc ccagctctat 360
 ttccacacgt gggctgcatc ctcagagctg ctgctcctca cggcatggc ctatgaccgg 420
 tacgcagcca tctgccacc gctgcattac agcagcatga tgagcaagg gttctgcagc 480
 gggctggcca cagccgtgtg gctgctctgc gccgtcaaca cggccatcca cacggggctg 540
 atgctgcgct tggatttctg tggccccaat gtcattatcc atttcttctg cgaggctcct 600
 cccctgctgc ttctctcctg cagctccacc tacgtcaacg gtgtcatgat tgtcctggcg 660
 gatgctttct acggcatagt gaacttctct atgaccatcg cgtcctatgg cttcatcgtc 720
 tccagcatcc tgaagggtgaa gactgcctgg gggaggcaga aagccttctc cacctgctct 780
 tcccacctca ccgtggtgtg catgtattac accgctgtct tctacgcta cataagcccg 840
 gtctctggct acagcgagg gaagagcaag ttggctggcc tgctgtacac tgtgctgagt 900

cctaccctca accccctcat ctatactttg agaaacaagg aggtcaaagc agccctcagg 960
aagcttttcc ctttcttcag aaattaa 987

<210> 153
<211> 310
<212> PRT
<213> Homo sapiens

<400> 153
Met Gln Leu Asn Asn Asn Val Thr Glu Phe Ile Leu Leu Gly Leu Thr
1 5 10 15
Gln Asp Pro Phe Trp Lys Lys Ile Val Phe Val Ile Phe Leu Arg Leu
20 25 30
Tyr Leu Gly Thr Leu Leu Gly Asn Leu Leu Ile Ile Ile Ser Val Lys
35 40 45
Ala Ser Gln Ala Leu Lys Asn Pro Met Phe Phe Phe Leu Phe Tyr Leu
50 55 60
Ser Leu Ser Asp Thr Cys Leu Ser Thr Ser Ile Ala Pro Arg Met Ile
65 70 75 80
Val Asp Ala Leu Leu Lys Lys Thr Thr Ile Ser Phe Ser Glu Cys Met
85 90 95
Ile Gln Val Phe Ser Ser His Val Phe Gly Cys Leu Glu Ile Phe Ile
100 105 110
Leu Ile Leu Thr Ala Val Asp Arg Tyr Val Asp Ile Cys Lys Pro Leu
115 120 125
His Tyr Met Thr Ile Ile Ser Gln Trp Val Cys Gly Val Leu Met Ala
130 135 140
Val Ala Trp Val Gly Ser Cys Val His Ser Leu Val Gln Ile Phe Leu
145 150 155 160
Ala Leu Ser Leu Pro Phe Cys Gly Pro Asn Val Ile Asn His Cys Phe
165 170 175
Cys Asp Leu Gln Pro Leu Leu Lys Gln Ala Cys Ser Glu Thr Tyr Val
180 185 190
Val Asn Leu Leu Leu Val Ser Asn Ser Gly Ala Ile Cys Ala Val Ser
195 200 205
Tyr Val Met Leu Ile Phe Ser Tyr Val Ile Phe Leu His Ser Leu Arg
210 215 220
Asn His Ser Ala Glu Val Ile Lys Lys Ala Leu Ser Thr Cys Val Ser
225 230 235 240
His Ile Ile Val Val Ile Leu Phe Phe Gly Pro Cys Ile Phe Met Tyr
245 250 255

Thr Cys Pro Ala Thr Val Phe Pro Met Asp Lys Met Ile Ala Val Phe
 260 265 270
 Tyr Thr Val Gly Thr Ser Phe Leu Asn Pro Val Ile Tyr Thr Leu Lys
 275 280 285
 Asn Thr Glu Val Lys Ser Ala Met Arg Lys Leu Trp Ser Lys Lys Leu
 290 295 300
 Ile Thr Asp Asp Lys Arg
 305 310

<210> 154
 <211> 933
 <212> DNA
 <213> Homo sapiens

<400> 154
 atgcaactga ataataatgt gactgagttc attctgcttg gattgacaca ggatcctttt 60
 tggaaagaaaa tagtggttgt tatttttttg cgtctctact tgggaacact gttgggtaat 120
 ttgctaataca ttattagtgt caaggccagc caggcactta agaacccaat gttcttcttc 180
 cttttctact tatctttatc tgataacttg ctcctctactt ccatagcccc tagaatgatt 240
 gtggatgccc ttttgaagaa gacaactatc tccttcagcg agtgcattgat ccaagtcttt 300
 tcatcccatg tctttggctg cctggagatc ttcacccctca tcctcacggc tgttgaccgc 360
 tatgtggaca tctgtaagcc cctgcactac atgaccatca taagccagtg ggtctgtggt 420
 gttttgatgg ctgtggcctg ggtgggatcc tgtgtgcatt ctttagttca gatttttctt 480
 gccctgagtt tgccattctg tggccccaat gtgatcaatc actgtttctg tgacttgcag 540
 cccttggtga aacaagcctg ttcagaaacc tatgtgggta acctactcct ggtttccaat 600
 agtggggcca tttgtgcagt gagttatgtc atgctaatat tctcctatgt catcttcttg 660
 cattctctga gaaaccacag tgctgaagtg ataaagaaa cactttccac atgtgtctcc 720
 cacatcattg tggatcatctt gttcttttga ccttgcatat ttatgtacac atgccctgca 780
 accgtattcc ccatggataa gatgatagct gtattttata cagttggaac atcttttctc 840
 aaccctgtga ttacacgct gaagaataca gaagtgaata gtgccatgag gaagcttttg 900
 agcaagaaat tgatcacaga tgacaaaaga taa 933

<210> 155
 <211> 347
 <212> PRT
 <213> Homo sapiens

<400> 155
 Met Gly Asn Trp Thr Ala Ala Val Thr Glu Phe Val Leu Leu Gly Phe
 1 5 10 15
 Ser Leu Ser Arg Glu Val Glu Leu Leu Leu Val Leu Leu Leu Pro
 20 25 30
 Thr Phe Leu Leu Thr Leu Leu Gly Asn Leu Leu Ile Ile Ser Thr Val
 35 40 45
 Leu Ser Cys Ser Arg Leu His Thr Pro Met Tyr Phe Phe Leu Cys Asn
 50 55 60
 Leu Ser Ile Leu Asp Ile Leu Phe Thr Ser Val Ile Ser Pro Lys Val

65		70		75		80
Leu Ala Asn Leu Gly	Ser Arg Asp Lys Thr Ile Ser Phe Ala Gly Cys	85	90	95		
Ile Thr Gln Cys Tyr Phe Tyr Phe Phe Leu Gly Thr Val Glu Phe Leu		100	105	110		
Leu Leu Thr Val Met Ser Tyr Asp Arg Tyr Ala Thr Ile Cys Cys Pro		115	120	125		
Leu Arg Tyr Thr Thr Ile Met Arg Pro Ser Val Cys Ile Gly Thr Val		130	135	140		
Val Phe Ser Trp Val Gly Gly Phe Leu Ser Val Leu Phe Pro Thr Ile		145	150	155		160
Leu Ile Ser Gln Leu Pro Phe Cys Gly Ser Asn Ile Ile Asn His Phe		165	170	175		
Phe Cys Asp Ser Gly Pro Leu Leu Ala Leu Ala Cys Ala Asp Thr Thr		180	185	190		
Ala Ile Glu Leu Met Asp Phe Met Leu Ser Ser Met Val Ile Leu Cys		195	200	205		
Cys Ile Val Leu Val Ala Tyr Ser Tyr Thr Tyr Ile Ile Leu Thr Ile		210	215	220		
Val Arg Ile Pro Ser Ala Ser Gly Arg Lys Lys Ala Phe Asn Thr Cys		225	230	235		240
Ala Ser His Leu Thr Ile Val Ile Ile Pro Ser Gly Ile Thr Val Phe		245	250	255		
Ile Tyr Val Thr Pro Ser Gln Lys Glu Tyr Leu Glu Ile Asn Lys Ile		260	265	270		
Pro Leu Val Leu Ser Ser Val Val Thr Pro Phe Leu Asn Pro Phe Ile		275	280	285		
Tyr Thr Leu Arg Asn Asp Thr Val Gln Gly Val Leu Arg Asp Val Trp		290	295	300		
Val Arg Val Arg Gly Val Phe Glu Lys Arg Met Arg Ala Val Leu Arg		305	310	315		320
Ser Arg Leu Ser Ser Asn Lys Asp His Gln Gly Arg Ala Cys Ser Ser		325	330	335		
Pro Pro Cys Val Tyr Ser Val Lys Leu Gln Cys		340	345			

<210> 156
 <211> 1044
 <212> DNA

<213> Homo sapiens

<400> 156

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atgggtaact ggactgcagc ggtgactgag tttgttctgc tgggggttttc cctgagcagg 60
gaggtggagc tgctgtcctt ggtgtcctcg ctgcccacgt tcctgtctgac tcttctgggg 120
aacctgtctc tcatctccac tgtgtgtgtc tgctcccgcc tccacacccc catgtacttc 180
ttcttgtgca acctctctat cctggacatc ctcttcacct cagtcatctc tccaaaagtg 240
ttggccaact taggatctag ggataaaacc atctcctttg ccggatgtat caccacagtgc 300
tatttctact ttttcttggg cacagttgag ttctctctgc tgacgggtcat gtcttatgac 360
cgttatgcca ccatctgctg cccctgcggg tacaccacca tcatgagacc ttctgtctgc 420
attgggaccg ttgtattctc ttgggtggga ggcttcctgt ctgtgtctct tccaaccatc 480
ctcatctccc agctgccctt ctgtggctcc aatatcatta accacttctt ctgtgacagt 540
ggacccttgc tggccctggc ctgtgcagac accactgcca tcgagctgat ggattttatg 600
ctttcttcca tggtcactct ctgtgcata gtctctgtgg cctattccta tacgtacatc 660
atcttgacca tagtgcgcat tccttctgca agtgggaagga agaaggcctt taatacctgt 720
gcttcccacc tgaccatagt catattcct agtggcatca ctgtgtttat ctatgtgact 780
ccctcccaga aagaatatct ggagatcaac aagatccctt tggttctgag cagtgtggtg 840
actccattcc tcaaccctt tatatatact ctgaggaatg acacagtgca gggagtcctc 900
agggatgtgt gggtcagggt tcgaggagtt tttgaaaaga ggatgagggc agtgtctgaga 960
agcagattat cctccaacaa agaccaccaa ggaagggtt gctcttctcc accatgtgtc 1020
tattctgtaa agctccagt ttag                                     1044
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<210> 157

<211> 309

<212> PRT

<213> Homo sapiens

<400> 157

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Met Gly Ala Lys Asn Asn Val Thr Glu Phe Val Leu Phe Gly Leu Phe
  1              5              10              15

Glu Ser Arg Glu Met Gln His Thr Cys Phe Val Val Phe Phe Leu Phe
      20              25              30

His Val Leu Thr Val Leu Gly Asn Leu Leu Val Ile Ile Thr Ile Asn
      35              40              45

Ala Arg Lys Thr Leu Lys Ser Pro Met Tyr Phe Phe Leu Ser Gln Leu
      50              55              60

Ser Phe Ala Asp Ile Cys Tyr Pro Ser Thr Thr Ile Pro Lys Met Ile
      65              70              75              80

Ala Asp Thr Phe Val Glu His Lys Ile Ile Ser Phe Asn Gly Cys Met
      85              90              95

Thr Gln Leu Phe Ser Ala His Phe Phe Gly Gly Thr Glu Ile Phe Leu
      100              105              110

Leu Thr Ala Met Ala Tyr Asp Arg Tyr Val Ala Ile Cys Arg Pro Leu
      115              120              125

His Tyr Thr Ala Ile Met Asp Cys Arg Lys Cys Gly Leu Leu Ala Gly
      130              135              140

Ala Ser Trp Leu Ala Gly Phe Leu His Ser Ile Leu Gln Thr Leu Leu
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145		150		155		160
Thr Val Gln Leu Pro Phe Cys Gly Pro Asn Glu Ile Asp Asn Phe Phe						
	165			170		175
Cys Asp Val His Pro Leu Leu Lys Leu Ala Cys Ala Asp Thr Tyr Met						
	180		185			190
Val Gly Leu Ile Val Val Ala Asn Ser Gly Met Ile Ser Leu Ala Ser						
	195		200		205	
Phe Phe Ile Leu Ile Ile Ser Tyr Val Ile Ile Leu Leu Asn Leu Arg						
	210		215		220	
Ser Gln Ser Ser Glu Asp Arg Arg Lys Ala Val Ser Thr Cys Gly Ser						
225		230		235		240
His Val Ile Thr Val Leu Leu Val Leu Met Pro Pro Met Phe Met Tyr						
	245		250			255
Ile Arg Pro Ser Thr Thr Leu Ala Ala Asp Lys Leu Ile Ile Leu Phe						
	260		265			270
Asn Ile Val Met Pro Pro Leu Leu Asn Pro Leu Ile Tyr Thr Leu Arg						
	275		280		285	
Asn Asn Asp Val Lys Asn Ala Met Arg Lys Leu Phe Arg Val Lys Arg						
	290		295		300	
Ser Leu Gly Glu Lys						
305						

<210> 158
 <211> 930
 <212> DNA
 <213> Homo sapiens

<400> 158
 atgggtgcca agaacaatgt gactgagttt gttttatttg gcctttttga gagcagagag 60
 atgcagcata catgctttgt ggtattcttc ctctttcatg tgctcactgt cctggggaac 120
 cttctggtca tcatcaccat caatgctaga aagaccctga agtctcccat gtatttcttc 180
 ctgagccagt tgtcttttgc tgacatatgt tatccatcca ctaccatacc caagatgatt 240
 gctgacactt ttgtggagca taagatcatc tccttcaatg gctgcatgac ccagctcttt 300
 tctgcccact tctttggtgg cactgagatc ttctctctta cagccatggc ctatgaccgc 360
 tatgtggcca tctgtaggcc cctgcactac acagccatca tggattgccg gaagtgtggc 420
 ctgctagcgg gggcctcctg gttagctggc ttctctgcat ccctcctgca gaccctcctc 480
 acggttcagc tgcctttttg tgggccaat gagatagaca acttcttctg tgatgttcat 540
 cccctgctca agttggcctg tgcagacacc tacatggtag gtctcatcgt ggtggccaac 600
 agcggtatga tttcttttagc atcctttttt atccttatca tttcctatgt tatcatctta 660
 ctgaacctaa gaagccagtc atctgaggac cggcgtaagg ctgtctccac atgtggctca 720
 cacgtaatca ctgtcctttt ggttctcatg ccccccatgt tcatgtacat tcgtccctcc 780
 accaccctgg ctgctgacaa acttatcatc ctctttaaca ttgtgatgcc acctttgctg 840
 aaccctttga tctatacact aaggaacaac gatgtgaaaa atgccatgag gaagctgttt 900
 aggggtcaaga ggagcttagg ggagaagtga 930

<210> 159
 <211> 329
 <212> PRT
 <213> Homo sapiens

<400> 159

Met	Gln	Leu	Val	Leu	Leu	Leu	Met	Phe	Leu	Leu	Val	Phe	Ile	Gly	Asn
1				5					10					15	
Thr	Ala	Pro	Ala	Phe	Ser	Val	Thr	Leu	Glu	Ser	Met	Asp	Ile	Pro	Gln
			20					25					30		
Asn	Ile	Thr	Glu	Phe	Phe	Met	Leu	Gly	Leu	Ser	Gln	Asn	Ser	Glu	Val
		35					40					45			
Gln	Arg	Val	Leu	Phe	Val	Val	Phe	Leu	Leu	Ile	Tyr	Val	Val	Thr	Val
	50					55					60				
Cys	Gly	Asn	Met	Leu	Ile	Val	Val	Thr	Ile	Thr	Ser	Ser	Pro	Thr	Leu
65					70					75					80
Ala	Ser	Pro	Val	Tyr	Phe	Phe	Leu	Ala	Asn	Leu	Ser	Phe	Ile	Asp	Thr
				85					90					95	
Phe	Tyr	Ser	Ser	Ser	Met	Ala	Pro	Lys	Leu	Ile	Ala	Asp	Ser	Leu	Tyr
			100					105					110		
Glu	Gly	Arg	Thr	Ile	Ser	Tyr	Glu	Cys	Cys	Met	Ala	Gln	Leu	Phe	Gly
		115					120					125			
Ala	His	Phe	Leu	Gly	Gly	Val	Glu	Ile	Ile	Leu	Leu	Thr	Val	Met	Ala
	130					135					140				
Tyr	Asp	Arg	Tyr	Val	Ala	Ile	Cys	Lys	Pro	Leu	His	Asn	Thr	Thr	Ile
145					150					155					160
Met	Thr	Arg	His	Leu	Cys	Ala	Met	Leu	Val	Gly	Val	Ala	Trp	Leu	Gly
				165					170					175	
Gly	Phe	Leu	His	Ser	Leu	Val	Gln	Leu	Leu	Leu	Val	Leu	Trp	Leu	Pro
			180					185					190		
Phe	Cys	Gly	Pro	Asn	Val	Ile	Asn	His	Phe	Ala	Cys	Asp	Leu	Tyr	Pro
		195					200					205			
Leu	Leu	Glu	Val	Ala	Cys	Thr	Asn	Thr	Tyr	Val	Ile	Gly	Leu	Leu	Val
	210					215					220				
Val	Ala	Asn	Ser	Gly	Leu	Ile	Cys	Leu	Leu	Asn	Phe	Leu	Met	Leu	Ala
225					230					235					240
Ala	Ser	Tyr	Ile	Val	Ile	Leu	Tyr	Ser	Leu	Arg	Ser	His	Ser	Ala	Asp
				245					250					255	
Gly	Arg	Cys	Lys	Ala	Leu	Ser	Thr	Cys	Gly	Ala	His	Phe	Ile	Val	Val
			260					265					270		

Ala Leu Phe Phe Val Pro Cys Ile Phe Thr Tyr Val His Pro Phe Ser
 275 280 285

Thr Leu Pro Ile Asp Lys Asn Met Ala Leu Phe Tyr Gly Ile Leu Thr
 290 295 300

Pro Met Leu Asn Pro Leu Ile Tyr Thr Leu Arg Asn Glu Glu Val Lys
 305 310 315 320

Asn Ala Met Arg Lys Leu Phe Thr Trp
 325

<210> 160
 <211> 990
 <212> DNA
 <213> Homo sapiens

<400> 160
 atgcaattag ttctattact tatgtttctc cttgtcttta taggcaatac tgcacctgca 60
 ttctcagtga ccttggaatc tatggacata ccacaaaata tcacagaatt ttccatgctg 120
 gggctctcac agaactcaga ggtacagaga gttctctttg tggctctttt gctgatctat 180
 gtggtcacgg tttgtggcaa catgctcatt gtggtcacta tcacctccag cccacgctg 240
 gcttccccctg tgtatttttt cctggccaac ctatccttta ttgacacctt ttattcttct 300
 tctatggctc ctaaaactcat tgctgactca ttgtatgagg ggagaaccat ctcttatgag 360
 tgctgcatgg ctacagctctt tggagctcat tttttgggag gtgttgagat cattctgctc 420
 acagtgatgg cttatgaccg ctatgtggcc atctgtaagc ccctgcacaa tactaccatc 480
 atgaccaggc atctctgtgc catgcttgta ggggtggctt ggcttggggg cttcctgcat 540
 tcattgggtc agctcctcct ggtccttttg ttgcccttct gtgggcccaa tgtgatcaat 600
 cactttgcct gtgacttgta ccctttgctg gaagttgcct gcaccaatac gtatgtcatt 660
 ggtctgctgg tggttgccaa cagtggttta atctgcctgt tgaacttcct catgctggct 720
 gcctcctaca ttgtcctcct gtactccttg aggtcccaca gtgcagatgg gagatgcaaa 780
 gccctctcca cctgtggagc ccacttcatt gttgttgctt tgttctttgt gccctgtata 840
 tttacttatg tgcattcatt ttctacttta cctatagaca aaaatatggc attattttat 900
 ggtattctga cacctatgtt gaatccactc atttataccc tgagaaatga agaggtaaaa 960
 aatgccatga gaaagctctt tacatggtaa 990

<210> 161
 <211> 359
 <212> PRT
 <213> Homo sapiens

<400> 161
 Met Asn Asn Ile Ala Gln Leu Ser Leu Gly Phe Ile Asp Leu Gly Ile
 1 5 10 15
 Pro Ser Val Leu Gln Lys Ile Ile Leu Thr Lys Ile Ile Leu Leu Phe
 20 25 30
 Lys Met Tyr Val Ser Asn Cys Asn Pro Cys Ala Ile His Arg Lys Ile
 35 40 45
 Asn Tyr Pro Asn Thr Lys Leu Asp Phe Glu Gln Val Asn Asn Ile Thr
 50 55 60
 Glu Phe Ile Leu Leu Gly Leu Thr Gln Asn Ala Glu Ala Gln Lys Leu

65		70		75		80
Leu Phe Ala Val	Phe Thr Leu Ile Tyr Phe Leu Thr Met Val Asp Asn					
	85		90		95	
Leu Ile Ile Val Val Thr Ile Thr Thr Ser Pro Ala Leu Asp Ser Pro						
	100		105		110	
Val Tyr Phe Phe Leu Ser Phe Phe Ser Phe Ile Asp Gly Cys Ser Ser						
	115		120		125	
Ser Thr Met Ala Pro Lys Met Ile Phe Asp Leu Leu Thr Glu Lys Lys						
	130		135		140	
Thr Ile Ser Phe Ser Gly Cys Met Thr Gln Leu Phe Val Glu His Phe						
	145		150		155	160
Phe Gly Gly Val Glu Ile Ile Leu Leu Val Val Met Ala Tyr Asp Cys						
	165		170		175	
Tyr Val Ala Ile Cys Lys Pro Leu Tyr Tyr Leu Ile Thr Met Asn Arg						
	180		185		190	
Gln Val Cys Gly Leu Leu Val Ala Met Ala Trp Val Gly Gly Phe Leu						
	195		200		205	
His Ala Leu Ile Gln Met Leu Leu Ile Val Trp Leu Pro Phe Cys Gly						
	210		215		220	
Pro Asn Val Ile Asp His Phe Ile Cys Asp Leu Phe Pro Leu Leu Lys						
	225		230		235	240
Leu Ser Cys Thr Asp Thr His Val Phe Gly Leu Phe Val Ala Ala Asn						
	245		250		255	
Ser Gly Leu Met Cys Met Leu Ile Phe Ser Ile Leu Ile Thr Ser Tyr						
	260		265		270	
Val Leu Ile Leu Cys Ser Gln Arg Lys Ala Leu Ser Thr Cys Ala Phe						
	275		280		285	
His Ile Thr Val Val Val Leu Phe Phe Val Pro Cys Ile Leu Val Tyr						
	290		295		300	
Leu Arg Pro Met Ile Thr Phe Pro Ile Asp Lys Ala Val Ser Val Phe						
	305		310		315	320
Tyr Thr Val Val Thr Pro Met Leu Asn Pro Leu Ile Tyr Thr Leu Arg						
	325		330		335	
Asn Thr Glu Val Lys Asn Ala Met Lys Gln Leu Trp Ser Gln Ile Ile						
	340		345		350	
Trp Gly Asn Asn Leu Cys Asp						
	355					

<210> 162
 <211> 1080
 <212> DNA
 <213> Homo sapiens

<400> 162
 atgaataaca tagctcaact tagtcttggg tttatagatt tagggattcc atcagtgtta 60
 cagaaaataa tcctgaccaa aattatttta ttgttcaaaa tgtatgtgtc aaattgcaat 120
 ccttgtgcta ttcacagaaa aatcaattat ccaaatacca aactggattt cgagcaagtg 180
 aacaacataa cggaattcat cttgcttggc ctgacacaga acgcagaggc acagaaactc 240
 ttgtttgctg tgtttacact catctacttt ctcaccatgg tagacaacct aatcattgtg 300
 gtgacaatca ccaccagccc agccctggac tccccgtgt atttttttct gtctttcttt 360
 tccttcatag atggctgctc ctcttctacc atggccccc aaatgatatt tgacttactc 420
 actgaaaaga aaactatttc cttcagtggg tgcattgacc agctctttgt agaactttc 480
 tttgggggag ttgagatcat tctgctcgtg gtgatggcct atgactgcta tgtggccatc 540
 tgcaagcccc tgtactacct gatcacaatg aacaggcagg tatgtggcct cctgggtggc 600
 atggcatggg tcgggggatt tcttcacgct ctgattcaaa tgcttttaaat agtctggctg 660
 cccttctgtg gcccgaatgt cattgaccat ttcatctgtg accttttccc tctgctaaaa 720
 ctctcctgca ctgacactca cgtctttgga ctctttgttg ccgccaacag tgggctgatg 780
 tgtatgctca ttttttctat tcttattacc tcttacgtcc taatcctctg ctcacagcgg 840
 aaggctctct ctacctgcgc cttccatata actgtagtcg tcctattctt tgttccctgt 900
 atattggtgt accttcgacc catgatcacc ttccctattg ataaagctgt gtctgtgttt 960
 tatactgtgg taacacccat gttaaacct ttaatctaca ccctcagaaa cacagagggt 1020
 aaaaatgcc aagaagcagct ctggagccaa ataactctggg gtaacaattt gtgtgattag 1080

<210> 163
 <211> 323
 <212> PRT
 <213> Homo sapiens

<400> 163
 Met Trp Gln Lys Asn Gln Thr Ser Leu Ala Asp Phe Ile Leu Glu Gly
 1 5 10 15
 Leu Phe Asp Asp Ser Leu Thr His Leu Phe Leu Phe Ser Leu Thr Met
 20 25 30
 Val Val Phe Leu Ile Ala Val Ser Gly Asn Thr Leu Thr Ile Leu,Leu
 35 40 45
 Ile Cys Ile Asp Pro Gln Leu His Thr Pro Met Tyr Phe Leu Leu Ser
 50 55 60
 Gln Leu Ser Leu Met Asp Leu Met His Val Ser Thr Ile Ile Leu Lys
 65 70 75 80
 Met Ala Thr Asn Tyr Leu Ser Gly Lys Lys Ser Ile Ser Phe Val Gly
 85 90 95
 Cys Ala Thr Gln His Phe Leu Tyr Leu Cys Leu Gly Gly Ala Glu Cys
 100 105 110
 Phe Leu Leu Ala Val Met Ser Tyr Asp Arg Tyr Val Ala Ile Cys His
 115 120 125
 Pro Leu Arg Tyr Ala Val Leu Met Asn Lys Lys Val Gly Leu Met Met

130	135	140
Ala Val Met Ser Trp Leu Gly Ala Ser Val Asn Ser Leu Ile His Met 145 150 155 160		
Ala Ile Leu Met His Phe Pro Phe Cys Gly Pro Arg Lys Val Tyr His 165 170 175		
Phe Tyr Cys Glu Phe Pro Ala Val Val Lys Leu Val Cys Gly Asp Ile 180 185 190		
Thr Val Tyr Glu Thr Thr Val Tyr Ile Ser Ser Ile Leu Leu Leu Leu 195 200 205		
Pro Ile Phe Leu Ile Ser Thr Ser Tyr Val Phe Ile Leu Gln Ser Val 210 215 220		
Ile Gln Met Arg Ser Ser Gly Ser Lys Arg Asn Ala Phe Ala Thr Cys 225 230 235 240		
Gly Ser His Leu Thr Val Val Ser Leu Trp Phe Gly Ala Cys Ile Phe 245 250 255		
Ser Tyr Met Arg Pro Arg Ser Gln Cys Thr Leu Leu Gln Asn Lys Val 260 265 270		
Gly Ser Val Phe Tyr Ser Ile Ile Thr Pro Thr Leu Asn Ser Leu Ile 275 280 285		
Tyr Thr Leu Arg Asn Lys Asp Val Ala Lys Ala Leu Arg Arg Val Leu 290 295 300		
Arg Arg Asp Val Ile Thr Gln Cys Ile Gln Arg Leu Gln Leu Trp Leu 305 310 315 320		
Pro Arg Val		

<210> 164
 <211> 972
 <212> DNA
 <213> Homo sapiens

<400> 164
 atgtggcaga agaatcagac ctctctggca gacttcatcc ttgaggggct cttcgatgac 60
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 ggcaacaccc tcaccattct cctcatctgc attgatcccc agcttcatac accaatgtat 180
 ttctgtctca gccagctctc cctcatggat ctgatgcatg tctccacaat catcctgaag 240
 atggctacca actacctatc tggcaagaaa tctatctcct ttgtgggctg tgcaaccag 300
 cacttcctct atttgtgtct aggtgggtgct gaatgttttc tcttagctgt catgtcctat 360
 gaccgctatg ttgccatctg tcatccactg cgctatgctg tgctcatgaa caagaagggtg 420
 ggactgatga tggctgtcat gtcatgggtg ggggcatccg tgaactccct aattcacatg 480
 gcgatcttga tgcacttccc tttctgtggg cctcggaag tctaccactt ctactgtgag 540
 ttcccagctg ttgtgaagtt ggtatgtggc gacatcactg tgtatgagac cacagtgtac 600
 atcagcagca ttctcctcct cctccccatc ttctgattt ctacatccta tgtcttcac 660
 cttcaaagtg tcattcagat gcgctcatct gggagcaaga gaaatgcctt tgccacttgt 720

ggctcccacc tcacgggtggt ttctcttttgg tttgggtgcct gcattcttctc ctacatgaga 780
 ccaggtccc agtgcactct attgcagaac aaagttggtt ctgtgttcta cagcatcatt 840
 acgcccacat tgaattctct gatttatact ctccggaata aagatgtagc taaggctctg 900
 agaagagtgc tgaggagaga tgttatcacc cagtgcattc aacgactgca attgtggttg 960
 ccccgagtgt ag 972

<210> 165
 <211> 348
 <212> PRT
 <213> Homo sapiens

<400> 165
 Met Leu Asp Pro Ser Ile Ser Ser His Thr Leu Tyr Leu His Ser Leu
 1 5 10 15
 Phe Pro Gln Gly Leu Arg Lys Gly Thr Met Trp Gln Lys Asn Gln Thr
 20 25 30
 Ser Leu Ala Asp Phe Ile Leu Glu Gly Leu Phe Asp Asp Ser Leu Thr
 35 40 45
 His Leu Phe Leu Phe Ser Leu Thr Met Val Val Phe Leu Ile Ala Val
 50 55 60
 Ser Gly Asn Thr Leu Thr Ile Leu Leu Ile Cys Ile Asp Pro Gln Leu
 65 70 75 80
 His Thr Pro Met Tyr Phe Leu Leu Ser Gln Leu Ser Leu Met Asp Leu
 85 90 95
 Met His Val Ser Thr Thr Ile Leu Lys Met Ala Thr Asn Tyr Leu Ser
 100 105 110
 Gly Lys Lys Ser Ile Ser Phe Val Gly Cys Ala Thr Gln His Phe Leu
 115 120 125
 Tyr Leu Cys Leu Gly Gly Ala Glu Cys Phe Leu Leu Ala Val Met Ser
 130 135 140
 Tyr Asp Arg Tyr Val Ala Ile Cys His Pro Leu Arg Tyr Ala Val Leu
 145 150 155 160
 Met Asn Lys Lys Val Gly Leu Met Met Ala Val Met Ser Trp Leu Gly
 165 170 175
 Ala Ser Val Asn Ser Leu Ile His Met Ala Ile Leu Met His Phe Pro
 180 185 190
 Phe Cys Gly Pro Arg Lys Val Tyr His Phe Tyr Cys Glu Phe Pro Ala
 195 200 205
 Val Val Lys Leu Val Cys Gly Asp Ile Thr Val Tyr Glu Thr Thr Val
 210 215 220
 Tyr Ile Ser Ser Ile Leu Leu Leu Leu Pro Ile Phe Leu Ile Ser Thr
 225 230 235 240

Ser Tyr Val Phe Ile Leu Gln Ser Val Ile Gln Met Arg Ser Ser Gly
245 250 255

Ser Lys Arg Asn Ala Phe Ala Thr Cys Gly Ser His Leu Thr Val Val
260 265 270

Ser Leu Trp Phe Gly Ala Cys Ile Phe Ser Tyr Met Arg Pro Arg Ser
275 280 285

Gln Cys Thr Leu Leu Gln Asn Lys Val Gly Ser Val Phe Tyr Ser Ile
290 295 300

Ile Thr Pro Thr Leu Asn Ser Leu Ile Tyr Thr Leu Arg Asn Lys Asp
305 310 315 320

Val Ala Lys Ala Leu Arg Arg Val Leu Arg Arg Asp Val Ile Thr Gln
325 330 335

Cys Ile Gln Arg Leu Gln Leu Trp Leu Pro Arg Val
340 345

<210> 166
<211> 1047
<212> DNA
<213> Homo sapiens

<400> 166
atgctggacc ccagtatcttc cagtcacact ctttatctcc actctctggt tcctcagggg 60
ttgagaaagg ggacaatgtg gcagaagaat cagacctctc tggcagactt catccttgag 120
gggctcttcg atgactccct taccacacct ttccctttct ccttgaccat ggtgggtctt 180
cttattgcgg tgagtggcaa caccctcacc attctcctca tctgcattga tccccagctt 240
catacaccaa tgtatttcct gctcagccag ctctccctca tggatctgat gcatgtctcc 300
acaacctatcc tgaagatggc taccaactac ctatctggca agaaatctat ctcccttctg 360
ggctgtgcaa cccagcactt cctctatctt tgtctagggt gtgctgaatg ttttctctta 420
gctgtcatgt cctatgaccg ctatgttgcc atctgtcatc cactgcgcta tgctgtgctc 480
atgaacaaga aggtgggact gatgatggct gtcattgcat ggttgggggc atccgtgaac 540
tccctaattc acatggcgat cttgatgcac ttccctttct gtgggcctcg gaaagtctac 600
cacttctact gtgagttccc agctgttggt aagttgggtat gtggcgacat cactgtgtat 660
gagaccacag tgtacatcag cagcattctc ctccctctcc ccattcttct gatttctaca 720
tcctatgtct tcattcctca aagtgtcatt cagatgcgct catctgggag caagagaaat 780
gcctttgcca cttgtggctc ccacctcagc gtgggtttctc tttgggttgg tgcttgcctc 840
ttctcctaca tgagaccag gtcccagtcg actctattgc agaacaaagt tggttctgtg 900
ttctacagca tcattacgcc cacattgaat tctctgattt atactctccg gaataaagat 960
gtagctaagg ctctgagaag agtgctgagg agagatgtta tcaccagtg cattcaacga 1020
ctgcaattgt ggttgccccg agtgtag 1047

<210> 167
<211> 370
<212> PRT
<213> Homo sapiens

<400> 167
Met Phe Ser Met Thr Thr Glu Ala Leu Asn Asn Phe Ala Leu Gly Cys
1 5 10 15

Thr	Asn	Leu	Leu	Met	Thr	Met	Ile	Pro	Gln	Ile	Asp	Leu	Lys	Gln	Ile		
			20					25					30				
Phe	Leu	Cys	Pro	Asn	Cys	Arg	Leu	Tyr	Met	Ile	Pro	Val	Gly	Ala	Phe		
		35					40					45					
Ile	Phe	Ser	Leu	Gly	Asn	Met	Gln	Asn	Gln	Ser	Phe	Val	Thr	Glu	Phe		
	50					55					60						
Val	Leu	Leu	Gly	Leu	Ser	Gln	Asn	Pro	Asn	Val	Gln	Glu	Ile	Val	Phe		
	65				70					75					80		
Val	Val	Phe	Leu	Phe	Val	Tyr	Ile	Ala	Thr	Val	Gly	Gly	Asn	Met	Leu		
				85					90					95			
Ile	Val	Val	Thr	Ile	Leu	Ser	Ser	Pro	Ala	Leu	Leu	Val	Ser	Pro	Met		
			100					105					110				
Tyr	Phe	Phe	Leu	Gly	Phe	Leu	Ser	Phe	Leu	Asp	Ala	Cys	Phe	Ser	Ser		
	115						120					125					
Val	Ile	Thr	Pro	Lys	Met	Ile	Val	Asp	Ser	Leu	Tyr	Val	Thr	Lys	Thr		
	130					135					140						
Ile	Ser	Phe	Glu	Gly	Cys	Met	Met	Gln	Leu	Phe	Ala	Glu	His	Phe	Phe		
	145				150					155					160		
Ala	Gly	Val	Glu	Val	Ile	Val	Leu	Thr	Ala	Met	Ala	Tyr	Asp	Arg	Tyr		
				165					170					175			
Val	Ala	Ile	Cys	Lys	Pro	Leu	His	Tyr	Ser	Ser	Ile	Met	Asn	Arg	Arg		
			180					185					190				
Leu	Cys	Gly	Ile	Leu	Met	Gly	Val	Ala	Trp	Thr	Gly	Gly	Leu	Leu	His		
	195					200						205					
Ser	Met	Ile	Gln	Ile	Leu	Phe	Thr	Phe	Gln	Leu	Pro	Phe	Cys	Gly	Pro		
	210					215					220						
Asn	Val	Ile	Asn	His	Phe	Met	Cys	Asp	Leu	Tyr	Pro	Leu	Leu	Glu	Leu		
	225				230					235					240		
Ala	Cys	Thr	Asp	Thr	His	Ile	Phe	Gly	Leu	Met	Val	Val	Ile	Asn	Ser		
				245					250					255			
Gly	Phe	Ile	Cys	Ile	Ile	Asn	Phe	Ser	Leu	Leu	Leu	Val	Ser	Tyr	Ala		
		260					265						270				
Val	Ile	Leu	Leu	Ser	Leu	Arg	Thr	His	Ser	Ser	Glu	Gly	Arg	Trp	Lys		
	275						280					285					
Ala	Leu	Ser	Thr	Cys	Gly	Ser	His	Ile	Ala	Val	Val	Ile	Leu	Phe	Phe		
	290					295					300						
Val	Pro	Cys	Ile	Phe	Val	Tyr	Thr	Arg	Pro	Pro	Ser	Ala	Phe	Ser	Leu		
	305				310					315					320		

Asp Lys Met Ala Ala Ile Phe Tyr Ile Ile Leu Asn Pro Leu Leu Asn
 325 330 335

Pro Leu Ile Tyr Thr Phe Arg Asn Lys Glu Val Lys Gln Ala Met Arg
 340 345 350

Arg Ile Trp Asn Arg Leu Met Val Val Ser Asp Glu Lys Glu Asn Ile
 355 360 365

Lys Leu
 370

<210> 168
 <211> 1113
 <212> DNA
 <213> Homo sapiens

<400> 168
 atgttctcaa tgacaacaga agcactcaat aattttgcac ttggatgtac caacttggtta 60
 atgactatga taccacaaat tgatctgaag caaattttcc tttgtcctaa ttgcagacta 120
 tacatgatcc ctgttggagc tttcatcttt tccttgggaa acatgcaaaa ccaaagcttt 180
 gtaactgagt ttgtcctcct gggactttca cagaatccaa atgttcagga aatagtattt 240
 gttgtatttt tgtttgtcta cattgcaact gttgggggca acatgctaata ttagtaacc 300
 attctcagca gccctgctct tctggtgtct cctatgtact tcttcttggg cttcctgtcc 360
 ttcttggtatg cgtgcttctc atctgtcctc accccaaaga tgattgtaga ctccctctat 420
 gtgacaaaaa ccatctcttt tgaaggctgc atgatgcagc tctttgctga acacttcttt 480
 gctgggggtgg aggtgattgt cctcacagcc atggcctatg atcggtatgt ggccatttgc 540
 aagcccttgc attactcttc tatcatgaac aggaggctct gtggcattct gatgggggta 600
 gcctggacag ggggcctctt gcattccatg atacaaattc tttttacttt ccagcttccc 660
 ttttgtggcc ccaatgtcat caatcacttt atgtgtgact tgtaccggtt actggagctt 720
 gcctgcactg atactcacat ctttggcctc atgggtggtca tcaacagtgg gtttatctgc 780
 atcataaact tctccttgtt gcttgtctcc tatgtgtcga tcttgcctc tctgagaaca 840
 cacagtctctg aaggcgctg gaaagctctc tccacctgtg gatctcacat tgctgttgtg 900
 attttgttct ttgtcccatg catatttgta tatacacgac ctccatctgc tttttccctt 960
 gacaaaatgg cggcaatatt ttatatcatc ttaaattccct tgctcaatcc tttgatttac 1020
 acttttcagga ataaggaagt aaaacaggcc atgaggagaa tatggaacag actgatggtg 1080
 gtttctgatg agaaagaaaa tattaactt taa 1113

<210> 169
 <211> 313
 <212> PRT
 <213> Homo sapiens

<400> 169
 Met Gly Asn Trp Ser Thr Val Thr Glu Ile Thr Leu Ile Ala Phe Pro
 1 5 10 15
 Ala Leu Leu Glu Ile Arg Ile Ser Leu Phe Val Val Leu Val Val Thr
 20 25 30
 Tyr Thr Leu Thr Ala Thr Gly Asn Ile Thr Ile Ile Ser Leu Ile Trp
 35 40 45
 Ile Asp His Arg Leu Gln Thr Pro Met Tyr Phe Phe Leu Ser Asn Leu

50	55	60
Ser Phe Leu Asp Ile Leu Tyr Thr Thr Val Ile Thr Pro Lys Leu Leu 65 70 75 80		
Ala Cys Leu Leu Gly Glu Glu Lys Thr Ile Ser Phe Ala Gly Cys Met 85 90 95		
Ile Gln Thr Tyr Phe Tyr Phe Phe Leu Gly Thr Val Glu Phe Ile Leu 100 105 110		
Leu Ala Val Met Ser Phe Asp Arg Tyr Met Ala Ile Cys Asp Pro Leu 115 120 125		
His Tyr Thr Val Ile Met Asn Ser Arg Ala Cys Leu Leu Leu Val Leu 130 135 140		
Gly Cys Trp Val Gly Ala Phe Leu Ser Val Leu Phe Pro Thr Ile Val 145 150 155 160		
Val Thr Arg Leu Pro Tyr Cys Arg Lys Glu Ile Asn His Phe Phe Cys 165 170 175		
Asp Ile Ala Pro Leu Leu Gln Val Ala Cys Ile Asn Thr His Leu Ile 180 185 190		
Glu Lys Ile Asn Phe Leu Leu Ser Ala Leu Val Ile Leu Ser Ser Leu 195 200 205		
Ala Phe Thr Thr Gly Ser Tyr Val Tyr Ile Ile Ser Thr Ile Leu Arg 210 215 220		
Ile Pro Ser Thr Gln Gly Arg Gln Lys Ala Phe Ser Thr Cys Ala Ser 225 230 235 240		
His Ile Thr Val Val Ser Ile Ala His Gly Ser Asn Ile Phe Val Tyr 245 250 255		
Val Arg Pro Asn Gln Asn Ser Ser Leu Asp Tyr Asp Lys Val Ala Ala 260 265 270		
Val Leu Ile Thr Val Val Thr Pro Leu Leu Asn Pro Phe Ile Tyr Ser 275 280 285		
Leu Arg Asn Glu Lys Val Gln Glu Val Leu Arg Glu Thr Val Asn Arg 290 295 300		
Ile Met Thr Leu Ile Gln Arg Lys Thr 305 310		

<210> 170
 <211> 942
 <212> DNA
 <213> Homo sapiens

<400> 170

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atgggaaact ggagcactgt gactgaaatc accctaattg ccttcccagc tctcctggag 60
attcgaatat ctctcttcgt ggttcttctg gtaacttaca cattaacagc aacaggaaac 120
atcaccatca tctccctgat atggattgat catcgctgc aaactccaat gtacttcttc 180
ctcagtaatt tgtcctttct ggatatotta tacaccactg tcattacccc aaagttgttg 240
gcctgcctcc taggagaaga gaaaaccata tcttttgctg gttgcatgat ccaaacatat 300
ttctacttct ttctggggac ggtggagttt atcctcttgg cggatgatgc ctttgaccgc 360
tacatggcta tctgcgaccc actgcactac acggtcacat tgaacagcag ggcctgcctt 420
ctgctgggtc tgggatgctg ggtgggagcc ttctgtctgt tgttggttcc aaccattgta 480
gtgacaaggc taccttactg taggaaagaa attaatacatt tcttctgtga cattgccccct 540
cttcttcagg tggcctgtat aaatactcac ctcatgaga agataaaactt tctcctctct 600
gcccttgta tcttgagctc cctggcattc actactgggt cctacgtgta cataatttct 660
accatcctgc gtatcccctc caccagggc cgtcagaaag ctttttctac ctgtgcttct 720
cacatcactg ttgtctccat tgcccacggg agcaacatct ttgtgtatgt gagaccaaat 780
cagaactcct cactggatta tgacaagggt gccgctgtcc tcatcacagt ggtgaccctt 840
ctcctgaacc cttttatcta cagcttgagg aatgagaagg tacaggaagt gttgagagag 900
acagtgaaca gaatcatgac cttgatacaa aggaaaactt ga 942

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<210> 171

<211> 312

<212> PRT

<213> Homo sapiens

<400> 171

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Met Arg Asn Gly Thr Val Ile Thr Glu Phe Ile Leu Leu Gly Phe Pro
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Val Ile Gln Gly Leu Gln Thr Pro Leu Phe Ile Ala Ile Phe Leu Thr
          20             25             30

Tyr Ile Leu Thr Leu Ala Gly Asn Gly Leu Ile Ile Ala Thr Val Trp
          35             40             45

Ala Glu Pro Arg Leu Gln Ile Pro Met Tyr Phe Phe Leu Cys Asn Leu
          50             55             60

Ser Phe Leu Glu Ile Trp Tyr Thr Thr Thr Val Ile Pro Lys Leu Leu
          65             70             75             80

Gly Thr Phe Val Val Ala Arg Thr Val Ile Cys Met Ser Cys Cys Leu
          85             90             95

Leu Gln Ala Phe Phe His Phe Phe Val Gly Thr Thr Glu Phe Leu Ile
          100            105            110

Leu Thr Ile Met Ser Phe Asp Arg Tyr Leu Thr Ile Cys Asn Pro Leu
          115            120            125

His His Pro Thr Ile Met Thr Ser Lys Leu Cys Leu Gln Leu Ala Leu
          130            135            140

Ser Ser Trp Val Val Gly Phe Thr Ile Val Phe Cys Gln Thr Met Leu
          145            150            155            160

Leu Ile Gln Leu Pro Phe Cys Gly Asn Asn Val Ile Ser His Phe Tyr
          165            170            175

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Cys Asp Val Gly Pro Ser Leu Lys Ala Ala Cys Ile Asp Thr Ser Ile
 180 185 190
 Leu Glu Leu Leu Gly Val Ile Ala Thr Ile Leu Val Ile Pro Gly Ser
 195 200 205
 Leu Leu Phe Asn Met Ile Ser Tyr Ile Tyr Ile Leu Ser Ala Ile Leu
 210 215 220
 Arg Ile Pro Ser Ala Thr Gly His Gln Lys Thr Phe Ser Thr Cys Ala
 225 230 235 240
 Ser His Leu Thr Val Val Ser Leu Leu Tyr Gly Ala Val Leu Phe Met
 245 250 255
 Tyr Leu Arg Pro Thr Ala His Ser Ser Phe Lys Ile Asn Lys Val Val
 260 265 270
 Ser Val Leu Asn Thr Ile Leu Thr Pro Leu Leu Asn Pro Phe Ile Tyr
 275 280 285
 Thr Ile Arg Asn Lys Glu Val Lys Gly Ala Leu Arg Lys Ala Met Thr
 290 295 300
 Cys Pro Lys Thr Gly His Ala Lys
 305 310

<210> 172
 <211> 939
 <212> DNA
 <213> Homo sapiens

<400> 172
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 ctacaaacac ctctctttat tgcaatcttt ctcacctaca tattaaccct tgcaggcaat 120
 gggcttatta ttgccactgt gtgggctgag cccaggctac aaattccaat gtacttcttc 180
 ctttgaact tgtctttctt agaaatctgg tacaccacca cagtcatccc caaactgcta 240
 ggaacctttg tagtggaag aacagtaac tgcattgtcct gctgcctgct gcaggccttc 300
 ttccacttct tcgtgggcac caccgagttc ttgatcctca ctatcatgtc ttttgaccgc 360
 tacctacca tctgcaatcc ccttcaccac cccaccatca tgaccagcaa actctgcctg 420
 cagctggccc tgagctcctg ggtgggtggc ttcaccattg tcttttgtca gacgatgctg 480
 ctcattccagt tgccattctg tggcaataat gttatcagtc atttctactg tgatgttggg 540
 cccagtttga aagccgcctg catagacacc agcattttgg aactcctggg cgtcatagca 600
 accatccttg tgatcccagg gtcacttctc tttaatatga tttcttatat ctacattctg 660
 tccgcaatcc tacgaattcc ttcagccact ggccaccaa agactttctc tacctgtgcc 720
 tcgcacctga cagttgtctc cctgctctac ggggctgttc tgttcatgta cctaagaccc 780
 acagcacact cctcctttaa gattaataag gtgggtgtctg tgctaaatac taccctcacc 840
 ccccttctga atccctttat ttatactatt agaaacaagg aggtgaaggg agccttaaga 900
 aaggcaatga cttgcccata gactgggtcat gcaaagtaa 939

<210> 173
 <211> 314
 <212> PRT
 <213> Homo sapiens

<400> 173

Met Leu Met Asn Tyr Ser Ser Ala Thr Glu Phe Tyr Leu Leu Gly Phe
1 5 10 15

Pro Gly Ser Glu Glu Leu His His Ile Leu Phe Ala Ile Phe Phe Phe
20 25 30

Phe Tyr Leu Val Thr Leu Met Gly Asn Thr Val Ile Ile Met Ile Val
35 40 45

Cys Val Asp Lys Arg Leu Gln Ser Pro Met Tyr Phe Phe Leu Gly His
50 55 60

Leu Ser Ala Leu Glu Ile Leu Val Thr Thr Ile Ile Val Pro Val Met
65 70 75 80

Leu Trp Gly Leu Leu Leu Pro Gly Met Gln Thr Ile Tyr Leu Ser Ala
85 90 95

Cys Val Val Gln Leu Phe Leu Tyr Leu Ala Val Gly Thr Thr Glu Phe
100 105 110

Ala Leu Leu Gly Ala Met Ala Val Asp Arg Tyr Val Ala Val Cys Asn
115 120 125

Pro Leu Arg Tyr Asn Ile Ile Met Asn Arg His Thr Cys Asn Phe Val
130 135 140

Val Leu Val Ser Trp Val Phe Gly Phe Leu Phe Gln Ile Trp Pro Val
145 150 155 160

Tyr Val Met Phe Gln Leu Thr Tyr Cys Lys Ser Asn Val Val Asn Asn
165 170 175

Phe Phe Cys Asp Arg Gly Gln Leu Leu Lys Leu Ser Cys Asn Asn Thr
180 185 190

Leu Phe Thr Glu Phe Ile Leu Phe Leu Met Ala Val Phe Val Leu Phe
195 200 205

Gly Ser Leu Ile Pro Thr Ile Val Ser Asn Ala Tyr Ile Ile Ser Thr
210 215 220

Ile Leu Lys Ile Pro Ser Ser Gly Arg Arg Lys Ser Phe Ser Thr
225 230 235 240

Cys Ala Ser His Phe Thr Cys Val Val Ile Gly Tyr Gly Ser Cys Leu
245 250 255

Phe Leu Tyr Val Lys Pro Lys Gln Thr Gln Ala Ala Asp Tyr Asn Trp
260 265 270

Val Val Ser Leu Met Val Ser Val Val Thr Pro Phe Leu Asn Pro Phe
275 280 285

Ile Phe Thr Leu Arg Asn Asp Lys Val Ile Glu Ala Leu Arg Asp Gly
290 295 300

Val Lys Arg Cys Cys Gln Leu Phe Arg Asn
305 310

<210> 174
<211> 945
<212> DNA
<213> Homo sapiens

<400> 174
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aacacagtca tcatcatgat tgtctgtgtg gataaacgtc tgcagtcccc catgtatttc 180
ttcctcggcc acctctctgc cctggagatc ctgggcacaa ccataatcgt ccccgatgatg 240
ctttggggat tgctgctccc tgggatgcag acaatatatt tgtctgcctg tgttgtccag 300
ctcttcttgt accttgctgt ggggacaaca gagttcgcac tacttggagc aatggctgtg 360
gaccgttatg tggctgtctg taacctctct aggtacaaca tcattatgaa cagacacacc 420
tgcaactttg tggttcttgt gtcattgggtg tttgggtttc tttttcaa atctggccggtc 480
tatgtcatgt ttcatgctac ttactgcaaa tcaaatgtgg tgaacaattt tttttgtgac 540
cgagggcaat tgctcaaact atcctgcaat aatactcttt tcacggagtt tatcctcttc 600
ttaatggctg tttttgttct ctttgggttct ttgatcccta caattgtctc caacgcctac 660
atcatctcca ccattctcaa gatcccgatc tcctctggcc ggaggaaatc cttctccact 720
tgtgcctccc acttcacctg tgttgtgatt ggctacggca gctgcttgtt tctctacgtg 780
aaaccctaagc aaacgcaggc agctgattac aattgggtag tttccctgat ggtttcagta 840
gtaactcctt tcctcaatcc tttcatcttc accctccgga atgataaagt catagaggcc 900
cttcgggatg ggggtgaaacg ctgctgtcaa ctattcagga attag 945

<210> 175
<211> 315
<212> PRT
<213> Homo sapiens

<400> 175
Met Glu Thr Trp Val Asn Gln Ser Tyr Thr Asp Gly Phe Phe Leu Leu
1 5 10 15
Gly Ile Phe Ser His Ser Thr Ala Asp Leu Val Leu Phe Ser Val Val
20 25 30
Met Ala Val Phe Thr Val Ala Leu Cys Gly Asn Val Leu Leu Ile Phe
35 40 45
Leu Ile Tyr Met Asp Pro His Leu His Thr Pro Met Tyr Phe Phe Leu
50 55 60
Ser Gln Leu Ser Leu Met Asp Leu Met Leu Val Cys Thr Asn Val Pro
65 70 75 80
Lys Met Ala Ala Asn Phe Leu Ser Gly Arg Lys Ser Ile Ser Phe Val
85 90 95
Gly Cys Gly Ile Gln Ile Gly Leu Phe Val Cys Leu Val Gly Ser Glu
100 105 110
Gly Leu Leu Leu Gly Leu Met Ala Tyr Asp Arg Tyr Val Ala Ile Ser

115	120	125
His Pro Leu His Tyr Pro Ile Leu Met Asn Gln Arg Val Cys Leu Gln 130 135 140		
Ile Thr Gly Ser Ser Trp Ala Phe Gly Ile Ile Asp Gly Leu Ile Gln 145 150 155 160		
Met Val Val Val Met Asn Phe Pro Tyr Cys Gly Leu Arg Lys Val Asn 165 170 175		
His Phe Phe Cys Glu Met Leu Ser Leu Leu Lys Leu Ala Cys Val Asp 180 185 190		
Thr Ser Leu Phe Glu Lys Val Ile Phe Ala Cys Cys Val Phe Met Leu 195 200 205		
Leu Phe Pro Phe Ser Ile Ile Val Ala Ser Tyr Ala His Ile Leu Gly 210 215 220		
Thr Val Leu Gln Met His Ser Ala Gln Ala Trp Lys Lys Ala Leu Ala 225 230 235 240		
Thr Cys Ser Ser His Leu Thr Ala Val Thr Leu Phe Tyr Gly Ala Ala 245 250 255		
Met Phe Ile Tyr Leu Arg Pro Arg His Tyr Arg Ala Pro Ser His Asp 260 265 270		
Lys Val Ala Ser Ile Phe Tyr Thr Val Leu Thr Pro Met Leu Asn Pro 275 280 285		
Leu Ile Tyr Ser Leu Arg Asn Arg Glu Val Met Gly Ala Leu Arg Lys 290 295 300		
Gly Leu Asp Arg Cys Arg Ile Gly Ser Gln His 305 310 315		

<210> 176
 <211> 948
 <212> DNA
 <213> Homo sapiens

<400> 176
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 cacagtactg ctgaccttgt cctcttctcc gtggttatgg cggctcttcac agtggccctc 120
 tgtgggaatg tcctcctcat cttcctcatc tacatggacc ctcaccttca caccctcatg 180
 tacttcttcc tcagccagct ctcctcatg gacctcatgt tggctgttac caatgtgcca 240
 aagatggcag ccaacttctt gtctggcagg aagtccatct cctttgtggg ctgtggcata 300
 caaattggcc tctttgtctg tcttgtggga tctgaggggc tcttgtctgg actcatggct 360
 tatgaccgct atgtggccat tagccaccca cttcactatc ccacctcat gaatcagagg 420
 gtctgtctcc agattactgg gagctcctgg gcctttggga taatcgatgg cttgatccag 480
 atggtggtag taatgaattt cccctactgt ggcttgagga aggtgaacca tttcttctgt 540
 gagatgctat ccttggttga gctggcctgt gtagacacat ccctggttga gaagggtgata 600
 tttgcttgcg gtgtcttcat gcttctcttc ccattctcca tcacgtggc ctcctatgct 660
 cacattctag ggactgtgct gcaaatgcac tctgctcagg cctggaaaaa ggccctggcc 720

acctgctcct cccacctgac agctgtcacc ctcttctatg gggcagccat gttcatctac 780
 ctgaggccta ggcactaccg ggccccccagc catgacaagg tggcctctat cttctacacg 840
 gtccttactc ccatgctcaa cccctcatt tacagcttga ggaacagggg ggtgatgggg 900
 gcactgagga aggggctgga ccgctgcagg atcggcagcc agcactga 948

<210> 177

<211> 335

<212> PRT

<213> Homo sapiens

<400> 177

Met	Leu	Gly	Ser	Lys	Pro	Arg	Val	His	Leu	Tyr	Ile	Leu	Pro	Cys	Ala
1				5					10					15	
Ser	Gln	Gln	Val	Ser	Thr	Met	Gly	Asp	Arg	Gly	Thr	Ser	Asn	His	Ser
			20					25					30		
Glu	Met	Thr	Asp	Phe	Ile	Leu	Ala	Gly	Phe	Arg	Val	Arg	Pro	Glu	Leu
			35				40					45			
His	Ile	Leu	Leu	Phe	Leu	Leu	Phe	Leu	Phe	Val	Tyr	Ala	Met	Ile	Leu
	50					55					60				
Leu	Gly	Asn	Val	Gly	Met	Met	Thr	Ile	Ile	Met	Thr	Asp	Pro	Arg	Leu
65					70					75					80
Asn	Thr	Pro	Met	Tyr	Phe	Phe	Leu	Gly	Asn	Leu	Ser	Phe	Ile	Asp	Leu
				85					90					95	
Phe	Tyr	Ser	Ser	Val	Ile	Glu	Pro	Lys	Ala	Met	Ile	Asn	Phe	Trp	Ser
			100					105					110		
Glu	Asn	Lys	Ser	Ile	Ser	Phe	Ala	Gly	Cys	Val	Ala	Gln	Leu	Phe	Leu
		115					120					125			
Phe	Ala	Leu	Leu	Ile	Val	Thr	Glu	Gly	Phe	Leu	Leu	Ala	Ala	Met	Ala
	130					135					140				
Tyr	Asp	Arg	Phe	Ile	Ala	Ile	Cys	Asn	Pro	Leu	Leu	Tyr	Ser	Val	Gln
145					150					155					160
Met	Ser	Thr	Arg	Leu	Cys	Thr	Gln	Leu	Val	Ala	Gly	Ser	Tyr	Phe	Cys
				165					170					175	
Gly	Cys	Ile	Ser	Ser	Val	Ile	Gln	Thr	Ser	Met	Thr	Phe	Thr	Leu	Ser
			180					185					190		
Phe	Cys	Ala	Ser	Arg	Ala	Val	Asp	His	Phe	Tyr	Cys	Asp	Ser	Arg	Pro
		195					200					205			
Leu	Gln	Arg	Leu	Ser	Cys	Ser	Asp	Leu	Phe	Ile	His	Arg	Met	Ile	Ser
	210					215					220				
Phe	Ser	Leu	Ser	Cys	Ile	Ile	Ile	Leu	Pro	Thr	Ile	Ile	Val	Ile	Ile
225					230					235				240	

Val Ser Tyr Met Tyr Ile Val Ser Thr Val Leu Lys Ile His Ser Thr
245 250 255

Glu Gly His Lys Lys Ala Phe Ser Thr Cys Ser Ser His Leu Gly Val
260 265 270

Val Ser Val Leu Tyr Gly Ala Val Phe Phe Met Tyr Leu Thr Pro Asp
275 280 285

Arg Phe Pro Glu Leu Ser Lys Val Ala Ser Leu Cys Tyr Ser Leu Val
290 295 300

Thr Pro Met Leu Asn Pro Leu Ile Tyr Ser Leu Arg Asn Lys Asp Val
305 310 315 320

Gln Glu Ala Leu Lys Lys Phe Leu Glu Lys Lys Asn Ile Ile Leu
325 330 335

<210> 178
<211> 1008
<212> DNA
<213> Homo sapiens

<400> 178
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tctaccatgg gtgacagggg aacaagcaat cactcagaaa tgactgactt cattcttgca 120
ggcttcaggg tacgccaga gctccacatt ctctctctcc tgctattttt gtttgtttat 180
gccatgatcc ttctagggaa tgttgggatg atgaccatta ttatgactga tctcgggctg 240
aacacaccaa tgtatttttt cctaggcaat ctctccttca ttgatctttt ctattcatct 300
gttattgaac ccaaggctat gatcaacttc tgggtctgaaa acaagtctat ctcttttgca 360
ggctgtgtgg ccagctctt tctctttgcc ctctcattg tgactgaggg atttctctcg 420
gcggccatgg cttatgaccg ctttattgcc atctgcaacc ctctgctcta ctctgttcaa 480
atgtccacac gtctgtgtac tcagttgggtg gctgggttctt atttttgtgg ctgcattagc 540
tcagttattc agactagcat gacatttact ttatcttttt gcgcttctcg ggctggtgac 600
cacttttact gtgattctcg ccacttcag agactgtctt gttctgatct ctttatccat 660
agaatgatat ctttttctt atcatgtatt attatcttgc ctactatcat agtcattata 720
gtatcttaca tgtatattgt gtccacagtt cttaaagatac attctactga gggacataag 780
aaggccttct ccacctgcag ctctcacctg ggagttgtga gtgtgctgta tgggtgctgc 840
ttttttatgt atctcactcc tgacagattt cctgagctga gtaaaagtggc atccttatgt 900
tactccctag tcaactcccat gttgaatcct ttgatttact ctctgaggaa caaagatgtc 960
caagaggctc taaaaaaatt tctagagaag aaaaatatta ttctttga 1008

<210> 179
<211> 316
<212> PRT
<213> Homo sapiens

<400> 179
Met Ile Cys Glu Asn His Thr Arg Val Thr Glu Phe Ile Leu Leu Gly
1 5 10 15

Phe Thr Asn Asn Pro Glu Met Gln Val Ser Leu Phe Ile Phe Phe Leu
20 25 30

Ala Ile Tyr Thr Val Thr Leu Leu Gly Asn Phe Leu Ile Val Thr Val

35					40					45					
Thr	Ser	Val	Asp	Leu	Ala	Leu	Gln	Thr	Pro	Met	Tyr	Phe	Phe	Leu	Gln
50						55					60				
Asn	Leu	Ser	Leu	Leu	Glu	Val	Cys	Phe	Thr	Leu	Val	Met	Val	Pro	Lys
65					70					75					80
Met	Leu	Val	Asp	Leu	Val	Ser	Pro	Arg	Lys	Ile	Ile	Ser	Phe	Val	Gly
				85					90					95	
Cys	Gly	Thr	Gln	Met	Tyr	Phe	Phe	Phe	Phe	Gly	Ser	Ser	Glu	Cys	
			100					105					110		
Phe	Leu	Leu	Ser	Met	Met	Ala	Tyr	Asp	Arg	Phe	Val	Ala	Ile	Cys	Asn
	115						120					125			
Pro	Leu	His	Tyr	Ser	Val	Ile	Met	Asn	Arg	Ser	Leu	Cys	Leu	Trp	Met
	130					135					140				
Ala	Ile	Gly	Ser	Trp	Met	Ser	Gly	Val	Pro	Val	Ser	Met	Leu	Gln	Thr
145					150					155					160
Ala	Trp	Met	Met	Ala	Leu	Pro	Phe	Cys	Gly	Pro	Asn	Ala	Val	Asp	His
				165					170					175	
Phe	Phe	Cys	Asp	Gly	Pro	Pro	Val	Leu	Lys	Leu	Val	Thr	Val	Asp	Thr
			180					185					190		
Thr	Met	Tyr	Glu	Met	Gln	Ala	Leu	Ala	Ser	Thr	Leu	Leu	Phe	Ile	Met
	195						200					205			
Phe	Pro	Phe	Cys	Leu	Ile	Leu	Val	Ser	Tyr	Thr	Arg	Ile	Ile	Ile	Thr
	210					215					220				
Ile	Leu	Arg	Met	Ser	Ser	Ala	Thr	Gly	Arg	Gln	Lys	Ala	Phe	Ser	Thr
225					230					235					240
Cys	Ser	Ser	His	Leu	Ile	Val	Val	Ser	Leu	Phe	Tyr	Gly	Thr	Ala	Ser
			245						250					255	
Leu	Thr	Tyr	Leu	Arg	Pro	Lys	Ser	Asn	Gln	Ser	Pro	Glu	Ser	Lys	Lys
			260					265					270		
Leu	Val	Ser	Leu	Ser	Tyr	Thr	Val	Ile	Thr	Pro	Met	Leu	Asn	Pro	Ile
		275					280					285			
Ile	Tyr	Gly	Leu	Arg	Asn	Asn	Glu	Val	Lys	Gly	Ala	Val	Lys	Arg	Thr
	290					295					300				
Ile	Thr	Gln	Lys	Val	Leu	Gln	Lys	Leu	Asp	Val	Phe				
305					310					315					

<210> 180
 <211> 951
 <212> DNA

<213> Homo sapiens

<400> 180

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atgatctgtg aaaatcacac cagagtcact gaatttattc ttcttggttt tacaacaac 60
cccgagatgc aagtttccct ctttattttt ttcttggttt tttatacagt cactttgttg 120
ggcaactttc ttattgtcac agttaccagt gtggatctcg cacttcaaac acccatgtac 180
ttctttcttc aaaatctgtc acttcttgaa gtatgtttca ccttggttat ggtgcaaaa 240
atgctttag atctagtgtc cccaaggaaa attatctctt ttgtgggctg tggtagccag 300
atgtacttct tcttcttctt tggcagttct gaatgtttcc ttctctccat gatggcttat 360
gatcgctttg tggccatctg taacctctc cattattcag tcataatgaa caggcccta 420
tgcttggtga tggccatagg ctcttggtg tccggtgttc ctgtgtctat gctacagaca 480
gcttggtgga tggcccttcc tttctgtgga ccaaagccg tggaccactt tttctgtgat 540
ggtccccag tgtaaaaact agtcacagt gatacaacca tgtatgaaat gcaagcactt 600
gcctccacac tctgtttat catgtttccc ttttgtctca ttttgggttc ctacaccgc 660
attatcataa caattctgag gatgtcctc gccactggcc gccagaaggc atttctact 720
tgctcctcac acctcattgt ggtgtccctc ttctacggaa cagccagtct gacctactg 780
cggcccaaat caaaccagtc ccctgagagc aagaagctag tgtcattgtc ctacactgtc 840
atcacaccta tgctaaacct catcatctac ggcctgagga acaatgaagt gaaaggggct 900
gtcaagagga caatcactca aaaagtctta cagaagttag atgtgtttt a 951
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<210> 181

<211> 362

<212> PRT

<213> Homo sapiens

<400> 181

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Met Thr Glu Phe His Leu Gln Ser Gln Met Pro Ser Ile Arg Leu Ile
  1              5              10              15

Phe Arg Arg Leu Ser Leu Gly Arg Ile Lys Pro Ser Gln Ser Pro Arg
      20              25              30

Cys Ser Thr Ser Phe Met Val Val Pro Ser Phe Ser Ile Ala Glu His
      35              40              45

Trp Arg Arg Met Lys Gly Ala Asn Leu Ser Gln Gly Met Glu Phe Glu
      50              55              60

Leu Leu Gly Leu Thr Thr Asp Pro Gln Leu Gln Arg Leu Leu Phe Val
      65              70              75              80

Val Phe Leu Gly Met Tyr Thr Ala Thr Leu Leu Gly Asn Leu Val Met
      85              90              95

Phe Leu Leu Ile His Val Ser Ala Thr Leu His Thr Pro Met Tyr Ser
      100              105              110

Leu Leu Lys Ser Leu Ser Phe Leu Asp Phe Cys Tyr Ser Ser Thr Val
      115              120              125

Val Pro Gln Thr Leu Val Asn Phe Leu Ala Lys Arg Lys Val Ile Ser
      130              135              140

Tyr Phe Gly Cys Met Thr Gln Met Phe Phe Tyr Ala Gly Phe Ala Thr
      145              150              155              160
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Ser Glu Cys Tyr Leu Ile Ala Ala Met Ala Tyr Asp Arg Tyr Ala Ala
 165 170 175
 Ile Cys Asn Pro Leu Leu Tyr Ser Thr Ile Met Ser Pro Glu Val Cys
 180 185 190
 Ala Ser Leu Ile Val Gly Ser Tyr Ser Ala Gly Phe Leu Asn Ser Leu
 195 200 205
 Ile His Thr Gly Cys Ile Phe Ser Leu Lys Phe Cys Gly Ala His Val
 210 215 220
 Val Thr His Phe Phe Cys Asp Gly Pro Pro Ile Leu Ser Leu Ser Cys
 225 230 235 240
 Val Asp Thr Ser Leu Cys Glu Ile Leu Leu Phe Ile Phe Ala Gly Phe
 245 250 255
 Asn Leu Leu Ser Cys Thr Leu Thr Ile Leu Ile Ser Tyr Phe Leu Ile
 260 265 270
 Leu Asn Thr Ile Leu Lys Met Ser Ser Ala Gln Gly Arg Phe Lys Ala
 275 280 285
 Phe Ser Thr Cys Ala Ser His Leu Thr Ala Ile Cys Leu Phe Phe Gly
 290 295 300
 Thr Thr Leu Phe Met Tyr Leu Arg Pro Arg Ser Ser Tyr Ser Leu Thr
 305 310 315 320
 Gln Asp Arg Thr Val Ala Val Ile Tyr Thr Val Val Ile Pro Val Leu
 325 330 335
 Asn Pro Leu Met Tyr Ser Leu Arg Asn Lys Asp Val Lys Lys Ala Leu
 340 345 350
 Ile Lys Val Trp Gly Arg Lys Thr Met Glu
 355 360

<210> 182
 <211> 1089
 <212> DNA
 <213> Homo sapiens

<400> 182
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 tccttaggca gaattaaacc cagtcagagc ccaggtgtt caacctcatt tatggtggtg 120
 ccttctttct ccatcgca gacactggaga aggatgaaag gggcaaacct gagccaaggg 180
 atggagtttg agctcttggg cctcaccact gacccccagc tccagaggct gctcttcgtg 240
 gtgttcctgg gcatgtacac agccactctg ctggggaacc tgggtcatgtt cctcctgac 300
 catgtgagtg ccaccctgca cacacccatg tactccctcc tgaagagcct ctccttcttg 360
 gatttctgct actcctccac gggtgtgccc cagaccctgg tgaacttctt ggccaagagg 420
 aaagtgatct cttatttttg ctgcatgact cagatgttct tctatgcggg ttttgccacc 480
 agtgagtgt atctcatcgc tgccatggcc tatgaccgct atgccgctat ttgtaacccc 540
 ctgctctact caaccatcat gtctcctgag gtctgtgcct cgctgattgt gggctcctac 600
 agtgcaggat tcctcaattc tcttatccac actggctgta tctttagtct gaaattctgc 660

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gggtgctcatg tcgtcactca cttcttctgt gatggggccac ccatacctgtc cttgtcttgt 720
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tgcaccctca ccatcttgat ctctacttc ttaattctca acaccatcct gaaaatgagc 840
tcggccccagg gcaggtttaa ggcattttcc acctgtgcat cccacctcac tgccatctgc 900
ctcttctttg gcacaacact ttttatgtac ctgcgccccca ggtccagcta ctccttgacc 960
caggaccgca cagttgctgt catctacaca gtggtgatcc cagtgtgaa cccctcatg 1020
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atggaatga 1089

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<210> 183
 <211> 314
 <212> PRT
 <213> Homo sapiens

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<400> 183
Met Arg Gly Phe Asn Lys Thr Thr Val Val Thr Gln Phe Ile Leu Val
  1              5              10              15

Gly Phe Ser Ser Leu Gly Glu Leu Gln Leu Leu Leu Phe Val Ile Phe
      20              25              30

Leu Leu Leu Tyr Leu Thr Ile Leu Val Ala Asn Val Thr Ile Met Ala
      35              40              45

Val Ile Arg Phe Ser Trp Thr Leu His Thr Pro Met Tyr Gly Phe Leu
      50              55              60

Phe Ile Leu Ser Phe Ser Glu Ser Cys Tyr Thr Phe Val Ile Ile Pro
      65              70              75              80

Gln Leu Leu Val His Leu Leu Ser Asp Thr Lys Thr Ile Ser Phe Met
      85              90              95

Ala Cys Ala Thr Gln Leu Phe Phe Phe Leu Gly Phe Ala Cys Thr Asn
      100              105              110

Cys Leu Leu Ile Ala Val Met Gly Tyr Asp Arg Tyr Val Ala Ile Cys
      115              120              125

His Pro Leu Arg Tyr Thr Leu Ile Ile Asn Lys Arg Leu Gly Leu Glu
      130              135              140

Leu Ile Ser Leu Ser Gly Ala Thr Gly Phe Phe Ile Ala Leu Val Ala
      145              150              155              160

Thr Asn Leu Ile Cys Asp Met Arg Phe Cys Gly Pro Asn Arg Val Asn
      165              170              175

His Tyr Phe Cys Asp Met Ala Pro Val Ile Lys Leu Ala Cys Thr Asp
      180              185              190

Thr His Val Lys Glu Leu Ala Leu Phe Ser Leu Ser Ile Leu Val Ile
      195              200              205

Met Val Pro Phe Leu Leu Ile Leu Ile Ser Tyr Gly Phe Ile Val Asn
      210              215              220

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Thr Ile Leu Lys Ile Pro Ser Ala Glu Gly Lys Lys Ala Phe Val Thr
 225 230 235 240
 Cys Ala Ser His Leu Thr Val Val Phe Val His Tyr Gly Cys Ala Ser
 245 250 255
 Ile Ile Tyr Leu Arg Pro Lys Ser Lys Ser Ala Ser Asp Lys Asp Gln
 260 265 270
 Leu Val Ala Val Thr Tyr Thr Val Val Thr Pro Leu Leu Asn Pro Leu
 275 280 285
 Val Tyr Ser Leu Arg Asn Lys Glu Val Lys Thr Ala Leu Lys Arg Val
 290 295 300
 Leu Gly Met Pro Val Ala Thr Lys Met Ser
 305 310

<210> 184
 <211> 945
 <212> DNA
 <213> Homo sapiens

<400> 184
 atgcgagggt tcaacaaaac cactgtgggt acacagttca tcctgggtggg tttctccagc 60
 ctgggggagc tccagctgct gctttttgtc atctttcttc tcctatactt gacaatcctg 120
 gtggccaatg tgaccatcat ggccgttatt cgcttcagct ggactctcca cactcccatg 180
 tatggctttc tattcatcct ttcattttct gagtcctgct acacttttgt catcatccct 240
 cagctgctgg tccacctgct ctccagacacc aagaccatct ccttcatggc ctgtgccacc 300
 cagctgttct ttttccttgg ctttgcttgc accaactgcc tcctcattgc tgtgatggga 360
 tatgatcgct atgtagcaat ttgtcaccct ctgagggtaca cactcatcat aaacaaaagg 420
 ctgggggttg agttgatttc tctctcagga gccacagggt tctttattgc tttgggtggc 480
 accaacctca tttgtgacat gcgtttttgt ggccccaaca gggttaacca ctatttctgt 540
 gacatggcac ctgttatcaa gttagcctgc actgacaccc atgtgaaaga gctggcttta 600
 tttagcctca gcatcctggt aattatggtg ccttttctgt taattctcat atcctatggc 660
 ttcatagtta acaccatcct gaagatcccc tcagctgagg gcaagaaggc ctttgtcacc 720
 tgtgcctcac atctcactgt ggtccttgc cactatggct gtgcctctat catctatctg 780
 cggcccaagt ccaagtctgc ctccagacaag gatcagttgg tggcagtgac ctacacagtg 840
 gttactccct tacttaatcc tcttgtctac agtctgagga acaaagaggt aaaaactgca 900
 ttgaaaagag ttcttgaat gcctgtggca accaagatga gctaa 945

<210> 185
 <211> 312
 <212> PRT
 <213> Homo sapiens

<400> 185
 Met Glu Arg Val Asn Glu Thr Val Val Arg Glu Val Ile Phe Leu Gly
 1 5 10 15
 Phe Ser Ser Leu Ala Arg Leu Gln Gln Leu Leu Phe Val Ile Phe Leu
 20 25 30
 Leu Leu Tyr Leu Phe Thr Leu Gly Thr Asn Ala Ile Ile Ile Ser Thr

35					40					45							
Ile	Val	Leu	Asp	Arg	Ala	Leu	His	Ile	Pro	Met	Tyr	Phe	Phe	Leu	Ala		
50					55					60							
Ile	Leu	Ser	Cys	Ser	Glu	Ile	Cys	Tyr	Thr	Phe	Ile	Ile	Val	Pro	Lys		
65					70					75					80		
Met	Leu	Val	Asp	Leu	Leu	Ser	Gln	Lys	Lys	Thr	Ile	Ser	Phe	Leu	Gly		
85					90					95							
Cys	Ala	Ile	Gln	Met	Phe	Ser	Phe	Leu	Phe	Leu	Gly	Cys	Ser	His	Ser		
100					105					110							
Phe	Leu	Leu	Ala	Val	Met	Gly	Tyr	Asp	Arg	Tyr	Ile	Ala	Ile	Cys	Asn		
115					120					125							
Pro	Leu	Arg	Tyr	Ser	Val	Leu	Met	Gly	His	Gly	Val	Cys	Met	Gly	Leu		
130					135					140							
Val	Ala	Ala	Ala	Cys	Ala	Cys	Gly	Phe	Thr	Val	Ala	Gln	Ile	Ile	Thr		
145					150					155					160		
Ser	Leu	Val	Phe	His	Leu	Pro	Phe	Tyr	Ser	Ser	Asn	Gln	Leu	His	His		
165					170					175							
Phe	Phe	Cys	Asp	Ile	Ala	Pro	Val	Leu	Lys	Leu	Ala	Ser	His	His	Asn		
180					185					190							
His	Phe	Ser	Gln	Ile	Val	Ile	Phe	Met	Leu	Cys	Thr	Leu	Val	Leu	Ala		
195					200					205							
Ile	Pro	Leu	Leu	Leu	Ile	Leu	Val	Ser	Tyr	Val	His	Ile	Leu	Ser	Ala		
210					215					220							
Ile	Leu	Gln	Phe	Pro	Ser	Thr	Leu	Gly	Arg	Cys	Lys	Ala	Phe	Ser	Thr		
225					230					235					240		
Cys	Val	Ser	His	Leu	Ile	Ile	Val	Thr	Val	His	Tyr	Gly	Cys	Ala	Ser		
245					250					255							
Phe	Ile	Tyr	Leu	Arg	Pro	Gln	Ser	Asn	Tyr	Ser	Ser	Ser	Gln	Asp	Ala		
260					265					270							
Leu	Ile	Ser	Val	Ser	Tyr	Thr	Ile	Ile	Thr	Pro	Leu	Phe	Asn	Pro	Met		
275					280					285							
Ile	Tyr	Ser	Leu	Arg	Asn	Lys	Glu	Phe	Lys	Ser	Ala	Leu	Cys	Lys	Ile		
290					295					300							
Val	Arg	Arg	Thr	Ile	Ser	Leu	Leu										
305					310												

<210> 186
 <211> 939
 <212> DNA

<213> Homo sapiens

<400> 186

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atggagcggg tcaatgagac tgtgggtgaga gaggtcatct tcctcgggctt ctcacccctg 60
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accaatgcaa tcatcatttc caccattgtc ctggacaggg cccttcatat ccccatgtac 180
ttcttccttg ccatcctctc ttgctctgag atttgctaca ccttcatcat tgtacccaag 240
atgctgggtg acctgctgtc ccagaagaag accatttctt tcctgggctg tgccatccaa 300
atgttttctt tcctcttctt tggtctgtct cactcctttc tgctggcagt catgggttat 360
gatcggtaca tagccatctg taacccactg cgctactcag tgctaattggg acatgggggtg 420
tgtatgggac tagtggctgc tgctgtgccc tgtggcttca ctggtgcaca gatcatcaca 480
tccttggtat ttcacctgcc tttttattcc tccaatcaac tacatcactt cttctgtgac 540
attgctcctg tcctcaagct ggcattctcac cataaccact ttagtcagat tgtcatcttc 600
atgctctgta cattggctct ggctatcccc ttattgttga tcttggtgtc ctatgttcac 660
atcctctctg ccatacttca gtttccctcc acactgggta ggtgcaaagc tttttctacc 720
tgtgtatctc acctcattat tgtcactgtc cactatgggt gtgcctcctt tatctactta 780
aggcctcagt ccaactactc ctcaagccag gatgctctaa tatcagatc ctacactatt 840
ataactccat tgttcaacct aatgatttat agcttgagaa ataaagagtt caaatcagct 900
ctttgtaaaaa ttgtgagaag aacaatttcc ctgttgtaa 939
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<210> 187

<211> 312

<212> PRT

<213> Homo sapiens

<400> 187

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Met Asp Thr Gly Asn Trp Ser Gln Val Ala Glu Phe Ile Ile Leu Gly
 1           5           10          15
Phe Pro His Leu Gln Gly Val Gln Ile Tyr Leu Phe Leu Leu Leu Leu
 20          25          30
Leu Ile Tyr Leu Met Thr Val Leu Gly Asn Leu Leu Ile Phe Leu Val
 35          40          45
Val Cys Leu Asp Ser Arg Leu His Thr Pro Met Tyr His Phe Val Ser
 50          55          60
Ile Leu Ser Phe Ser Glu Leu Gly Tyr Thr Ala Ala Thr Ile Pro Lys
 65          70          75          80
Met Leu Ala Asn Leu Leu Ser Glu Lys Lys Thr Ile Ser Phe Ser Gly
 85          90          95
Cys Leu Leu Gln Ile Tyr Phe Phe His Ser Leu Gly Ala Thr Glu Cys
100          105          110
Tyr Leu Leu Thr Ala Met Ala Tyr Asp Arg Tyr Leu Ala Ile Cys Arg
115          120          125
Pro Leu His Tyr Pro Thr Leu Met Thr Pro Thr Leu Cys Ala Glu Ile
130          135          140
Ala Ile Gly Cys Trp Leu Gly Gly Leu Ala Gly Pro Val Val Glu Ile
145          150          155          160
```


Ser Leu Ile Ser Arg Leu Pro Phe Cys Gly Pro Asn Arg Ile Gln His
 165 170 175
 Val Phe Cys Asp Phe Pro Pro Val Leu Ser Leu Ala Cys Thr Asp Thr
 180 185 190
 Ser Ile Asn Val Leu Val Asp Phe Val Ile Asn Ser Cys Lys Ile Leu
 195 200 205
 Ala Thr Phe Leu Leu Ile Leu Cys Ser Tyr Val Gln Ile Ile Cys Thr
 210 215 220
 Val Leu Arg Ile Pro Ser Ala Ala Gly Lys Arg Lys Ala Ile Ser Thr
 225 230 235 240
 Cys Ala Ser His Phe Thr Val Val Leu Ile Phe Tyr Gly Ser Ile Leu
 245 250 255
 Ser Met Tyr Val Gln Leu Lys Lys Ser Tyr Ser Leu Asp Tyr Asp Gln
 260 265 270
 Ala Leu Ala Val Val Tyr Ser Val Leu Thr Pro Phe Leu Asn Pro Phe
 275 280 285
 Ile Tyr Ser Leu Arg Asn Lys Glu Ile Lys Glu Ala Val Arg Arg Gln
 290 295 300
 Leu Lys Arg Ile Gly Ile Leu Ala
 305 310

<210> 188
 <211> 939
 <212> DNA
 <213> Homo sapiens

<400> 188
 atggacacag ggaactggag ccaggtagca gaattcatca tcttgggctt ccccatctc 60
 cagggtgtcc agatttatct cttcctcttg ttgcttctca tttacctcat gactgtgttg 120
 ggaaacctgc tgatattcct ggtgggtctgc ctggactccc ggcttcacac acccatgtac 180
 cactttgtca gcattctctc cttctcagag cttggctata cagctgccac catccctaag 240
 atgctggcaa acttgctcag tgagaaaaag accatttcat tctctgggtg tctcctgcag 300
 atctatttct ttcactccct tggagcgact gagtgtatc tcctgacagc tatggcctac 360
 gataggtatt tagccatctg ccggccctc cactacccaa ccctcatgac cccaacactt 420
 tgtgcagaga ttgccattgg ctggttggtt ggaggcttgg ctgggccagt agttgaaatt 480
 tccttgattt cagcctccc attctgtggc cccaatcgca ttcagcacgt cttttgtgac 540
 ttccctcctg tgctgagttt ggcttgcaat gatacgtcta taaatgtcct agtagatttt 600
 gttataaatt cctgcaagat cctagccacc ttctgtgcta tcctctgctc ctatgtgcag 660
 atcatctgca cagtgtcag aattccctca gctgccggca agaggaaggc catctccacg 720
 tgtgcctccc acttactgtt ggttctcctc ttctatggga gcaccccttc catgtatgtg 780
 cagctgaaga agagctactc actggactat gaccaggccc tggcagtggt ctactcagtg 840
 ctcacaccct tcctcaaccc cttcatctac agcttgcgca acaaggagat caaggaggct 900
 gtgaggaggc agctaaagag aattgggata ttggcatga 939

<210> 189
 <211> 319

<212> PRT

<213> Homo sapiens

<400> 189

Met	Pro	Val	Gly	Lys	Leu	Val	Phe	Asn	Gln	Ser	Glu	Pro	Thr	Glu	Phe
1				5					10					15	
Val	Phe	Arg	Ala	Phe	Thr	Thr	Ala	Thr	Glu	Phe	Gln	Val	Leu	Leu	Phe
			20					25					30		
Leu	Leu	Phe	Leu	Leu	Leu	Tyr	Leu	Met	Ile	Leu	Cys	Gly	Asn	Thr	Ala
		35					40					45			
Ile	Ile	Trp	Val	Val	Cys	Thr	His	Ser	Thr	Leu	Arg	Thr	Pro	Met	Tyr
	50					55					60				
Phe	Phe	Leu	Ser	Asn	Leu	Ser	Phe	Leu	Glu	Leu	Cys	Tyr	Thr	Thr	Val
65					70					75					80
Val	Val	Pro	Leu	Met	Leu	Ser	Asn	Ile	Leu	Gly	Ala	Gln	Lys	Pro	Ile
				85					90					95	
Ser	Leu	Ala	Gly	Cys	Gly	Ala	Gln	Met	Phe	Phe	Phe	Val	Thr	Leu	Gly
			100					105					110		
Ser	Thr	Asp	Cys	Phe	Leu	Leu	Ala	Ile	Met	Ala	Tyr	Asp	Arg	Tyr	Val
		115					120					125			
Ala	Ile	Cys	His	Pro	Leu	His	Tyr	Thr	Leu	Ile	Met	Thr	Arg	Glu	Leu
	130					135					140				
Cys	Thr	Gln	Met	Leu	Gly	Gly	Ala	Leu	Gly	Leu	Ala	Leu	Phe	Pro	Ser
145					150					155					160
Leu	Gln	Leu	Thr	Ala	Leu	Ile	Phe	Thr	Leu	Pro	Phe	Cys	Gly	His	His
				165					170					175	
Gln	Glu	Ile	Asn	His	Phe	Leu	Cys	Asp	Val	Pro	Pro	Val	Leu	Arg	Leu
			180					185					190		
Ala	Cys	Ala	Asp	Ile	Arg	Val	His	Gln	Ala	Val	Leu	Tyr	Val	Val	Ser
		195					200					205			
Ile	Leu	Val	Leu	Thr	Ile	Pro	Phe	Leu	Leu	Ile	Cys	Val	Ser	Tyr	Val
	210					215					220				
Phe	Ile	Thr	Cys	Ala	Ile	Leu	Ser	Ile	Arg	Ser	Ala	Glu	Gly	Arg	Arg
225				230						235					240
Arg	Ala	Phe	Ser	Thr	Cys	Ser	Phe	His	Leu	Thr	Val	Val	Leu	Leu	Gln
				245					250					255	
Tyr	Gly	Cys	Cys	Ser	Leu	Val	Tyr	Leu	Arg	Pro	Arg	Ser	Ser	Thr	Ser
			260					265					270		
Glu	Asp	Glu	Asp	Ser	Gln	Ile	Ala	Leu	Val	Tyr	Thr	Phe	Val	Thr	Pro
	275						280						285		

Leu Leu Asn Pro Leu Leu Tyr Ser Leu Arg Asn Lys Asp Val Lys Gly
 290 295 300

Ala Leu Arg Ser Ala Ile Ile Arg Lys Ala Ala Ser Asp Ala Asn
 305 310 315

<210> 190
 <211> 960
 <212> DNA
 <213> Homo sapiens

<400> 190
 atgcctgtgg ggaaacttgt cttcaaccag tctgagccca ctgagtttgt gttccgtgcg 60
 ttcaccacag ccactgaatt ccaggttctt ctcttccttc tcttcctcct cctctacttg 120
 atgatcctct gtggcaacac agccatcatc tgggtggtgt gcacacacag caccctccgc 180
 accccgatgt atttcttcct gtccaacctg tctttcctgg aactctgcta caccaccgtg 240
 gtagtaccct tgatgctttc caacattttg ggggcccgaga agcccatttc gttggctgga 300
 tgtggggccc aaatgttctt ctttgtcacc ctgggcagca cggactgttt cctcttggcg 360
 atcatggcct atgaccgcta tgtggctatc tgccaccgcg tgcactacac cctcatcatg 420
 acccgcgagc tgtgcacgca gatgctgggt ggggccctgg gcctggccct cttcccctcc 480
 ctgcagctca ccgccttaat cttcacctcg cccttttgcg gccaccacca ggaaatcaac 540
 cacttcctct gcgatgtgcc tcccgctctg cgctggcct gcgctgacat ccgcgtgcac 600
 caggctgtcc tctatgtcgt gagcatcctc gtgctgacca tccccttcct gctcatctgc 660
 gtctcctacg tgttcatcac ctgtgccatc ctgagcatcc gttctgccga gggccgcccgc 720
 cgggccttct ccacctgctc cttccacctc accgtggtcc tgctgcagta tggtgtgctgc 780
 agcctcgtgt acctgcgtcc tcggtccagc acctcagagg atgaggacag ccaaatcgcg 840
 ttggtctaca cctttgtcac ccccttactc aaccctttgc tttacagcct taggaacaag 900
 gatgtcaaag gtgctctgag gagtgccatt atccgtaaag cagcctctga cgccaactga 960

<210> 191
 <211> 310
 <212> PRT
 <213> Homo sapiens

<400> 191
 Met Ala Glu Met Asn Leu Thr Leu Val Thr Glu Phe Leu Leu Ile Ala
 1 5 10 15
 Phe Thr Glu Tyr Pro Glu Trp Ala Leu Pro Leu Phe Leu Leu Leu Leu
 20 25 30
 Phe Met Tyr Leu Ile Thr Val Leu Gly Asn Leu Glu Met Ile Ile Leu
 35 40 45
 Ile Leu Met Asp His Gln Leu His Ala Pro Met Tyr Phe Leu Leu Ser
 50 55 60
 His Leu Ala Phe Met Asp Val Cys Tyr Ser Ser Ile Thr Val Pro Gln
 65 70 75 80
 Met Leu Ala Val Leu Leu Glu His Gly Ala Ala Leu Ser Tyr Thr Arg
 85 90 95
 Cys Ala Ala Gln Phe Phe Leu Phe Thr Phe Phe Gly Ser Ile Asp Cys

100	105	110
Tyr Leu Leu Ala Leu Met Ala Tyr Asp Arg Tyr Leu Ala Val Cys Gln 115 120 125		
Pro Leu Leu Tyr Val Thr Ile Leu Thr Gln Gln Ala Arg Leu Ser Leu 130 135 140		
Val Ala Gly Ala Tyr Val Ala Gly Leu Ile Ser Ala Leu Val Arg Thr 145 150 155 160		
Val Ser Ala Phe Thr Leu Ser Phe Cys Gly Thr Ser Glu Ile Asp Phe 165 170 175		
Ile Phe Cys Asp Leu Pro Pro Leu Leu Lys Leu Thr Cys Gly Glu Ser 180 185 190		
Tyr Thr Gln Glu Val Leu Ile Ile Met Phe Ala Ile Phe Val Ile Pro 195 200 205		
Ala Ser Met Val Val Ile Leu Val Ser Tyr Leu Phe Ile Ile Val Ala 210 215 220		
Ile Met Gly Ile Pro Ala Gly Ser Gln Ala Lys Thr Phe Ser Thr Cys 225 230 235 240		
Thr Ser His Leu Thr Ala Val Ser Leu Phe Phe Gly Thr Leu Ile Phe 245 250 255		
Met Tyr Leu Arg Gly Asn Ser Asp Gln Ser Ser Glu Lys Asn Arg Val 260 265 270		
Val Ser Val Leu Tyr Thr Glu Val Ile Pro Met Leu Asn Pro Leu Ile 275 280 285		
Tyr Ser Leu Arg Asn Lys Glu Val Lys Glu Ala Leu Arg Lys Ile Leu 290 295 300		
Asn Arg Ala Lys Leu Ser 305 310		

<210> 192
 <211> 933
 <212> DNA
 <213> Homo sapiens

<400> 192
 atggcagaga tgaacctcac cttgggtgacc gagttcctcc ttattgcatt cactgaatat 60
 cctgaatggg cactccctct cttcctcttg ttattattta tgtatctcat caccgtattg 120
 gggaacttag agatgattat tctgacctc atggatcacc agctccacgc tccaatgtat 180
 ttcccttctga gtcacctcgc tttcatggac gtctgctact catctatcac tgtccccag 240
 atgctggcag tgctgctgga gcatggggca gctttatctt acacacgctg tgctgctcag 300
 ttctttctgt tcaccttctt tggttccatc gactgctacc tcttggccct catggcctat 360
 gaccgctact tggctgtgtg ccagccctg ctttatgtca ccacctgac acagcaggcc 420
 cgcttgagtc ttgtggctgg ggcttacgtt gctgggtctca tcagtgcctt ggtgcggaca 480
 gtctcagcct tcactctctc cttctgtgga accagtgaga ttgactttat tttctgtgac 540

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ctccctcctc tgttaaagtt gacctgtggg gagagctaca ctcaagaagt gctgattatt 600
atgtttgccca tttttgtcat cctgcttcc atggtggtga tcttggtgtc ctacctgttt 660
atcatcgtgg ccatcatggg gatccctgct ggaagccagg ccaagacctt ctccacctgc 720
acctccacc tcaactgctgt gtcactcttc tttggtaccc tcatcttcat gtacttgaga 780
ggtaactcag atcagtcttc ggagaagaat cgggtagtgt ctgtgcttta cacagaggtc 840
atcccatgt tgaatccct catctacagc ctgaggaaca aggaagtgaa ggaggccctg 900
agaaaaattc tcaatagagc caagttgtcc taa 933

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<210> 193

<211> 315

<212> PRT

<213> Homo sapiens

<400> 193

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Met Gln Gly Leu Asn His Thr Ser Val Ser Glu Phe Ile Leu Val Gly
  1              5              10              15

Phe Ser Ala Phe Pro His Leu Gln Leu Met Leu Phe Leu Leu Phe Leu
      20              25              30

Leu Met Tyr Leu Phe Thr Leu Leu Gly Asn Leu Leu Ile Met Ala Thr
      35              40              45

Val Trp Ser Glu Arg Ser Leu His Met Pro Met Tyr Leu Phe Leu Cys
      50              55              60

Ala Leu Ser Ile Thr Glu Ile Leu Tyr Thr Val Ala Ile Ile Pro Arg
      65              70              75              80

Met Leu Ala Asp Leu Leu Ser Thr Gln Arg Ser Ile Ala Phe Leu Ala
      85              90              95

Cys Ala Ser Gln Met Phe Phe Ser Phe Ser Phe Gly Phe Thr His Ser
      100              105              110

Phe Leu Leu Thr Val Met Gly Tyr Asp Arg Tyr Val Ala Ile Cys His
      115              120              125

Pro Leu Arg Tyr Asn Val Leu Met Ser Leu Arg Gly Cys Thr Cys Arg
      130              135              140

Val Gly Cys Ser Trp Ala Gly Gly Leu Val Met Gly Met Val Val Thr
      145              150              155              160

Ser Ala Ile Phe His Leu Ala Phe Cys Gly His Lys Glu Ile His His
      165              170              175

Phe Phe Cys His Val Pro Pro Leu Leu Lys Leu Ala Cys Gly Asp Asp
      180              185              190

Val Leu Val Val Ala Lys Gly Val Gly Leu Val Cys Ile Thr Ala Leu
      195              200              205

Leu Gly Cys Phe Leu Leu Ile Leu Leu Ser Tyr Ala Phe Ile Val Ala
      210              215              220

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Ala Ile Leu Lys Ile Pro Ser Ala Glu Gly Arg Asn Lys Ala Phe Ser
 225 230 235 240

Thr Cys Ala Ser His Leu Thr Val Val Val Val His Tyr Gly Phe Ala
 245 250 255

Ser Val Ile Tyr Leu Lys Pro Lys Gly Pro Gln Ser Pro Glu Gly Asp
 260 265 270

Thr Leu Met Gly Ile Thr Tyr Thr Val Leu Thr Pro Phe Leu Ser Pro
 275 280 285

Ile Ile Phe Ser Leu Arg Asn Lys Glu Leu Lys Val Ala Met Lys Lys
 290 295 300

Thr Cys Phe Thr Lys Leu Phe Pro Gln Asn Cys
 305 310 315

<210> 194
 <211> 948
 <212> DNA
 <213> Homo sapiens

<400> 194
 atgcaggggc taaaccacac ctccgtgtct gaattcatcc tcgttggtt ctctgccttc 60
 cccacactcc agctgatgct ctccctgctg ttccctgctga tgtacctgtt cacgctgctg 120
 ggcaacctgc tcatcatggc cactgtcttg agcgagcgca gcctccacat gcccatgtac 180
 ctcttcctgt gtgccctctc catcaccgag atcctctaca ccgtggccat catcccgcgc 240
 atgctggcgg acctgctgtc caccagcgc tccatcgctt tcctggcctg tgccagtcag 300
 atgttcttct ccttcagctt cggttcacc cactccttcc tgctcactgt catgggctac 360
 gaccgctacg tggccatctg ccacccctg cgttacaacg tgctcatgag cctgcggggc 420
 tgcacctgcc ggggtgggctg ctccctgggct ggtggcttgg tcatggggat ggtggtgacc 480
 tcggccattt tccacctcgc cttctgtgga cacaaggaga tccaccattt cttctgccac 540
 gtgccacctc tgttgaagtt ggcctgtgga gatgatgtgc tgggtgggtggc caaaggcgtg 600
 ggcttggtgt gtatcacggc cctgctgggc tgttttctcc tcatcctct ctcctatgcc 660
 ttcatcgtgg ccgccatctt gaagatccct tctgctgaag gtcggaacaa ggccttctcc 720
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 ctgaagccca aaggtcccca gtctccgga ggagacacct tgatgggcat cacctacacg 840
 gtccctcacac cttcctcag ccccatcatc ttcagcctca ggaacaagga gctgaaggtc 900
 gccatgaaga agacttgctt caccaaactc tttccacaga actgctga 948

<210> 195
 <211> 313
 <212> PRT
 <213> Homo sapiens

<400> 195
 Met Glu Thr Ala Asn Tyr Thr Lys Val Thr Glu Phe Val Leu Thr Gly
 1 5 10 15

Leu Ser Gln Thr Pro Glu Val Gln Leu Val Leu Phe Val Ile Phe Leu
 20 25 30

Ser Phe Tyr Leu Phe Ile Leu Pro Gly Asn Ile Leu Ile Ile Cys Thr
 35 40 45

Ile	Ser	Leu	Asp	Pro	His	Leu	Thr	Ser	Pro	Met	Tyr	Phe	Leu	Leu	Ala	50	55	60
Asn	Leu	Ala	Phe	Leu	Asp	Ile	Trp	Tyr	Ser	Ser	Ile	Thr	Ala	Pro	Glu	65	70	75
Met	Leu	Ile	Asp	Phe	Phe	Val	Glu	Arg	Lys	Ile	Ile	Ser	Phe	Asp	Gly	85	90	95
Cys	Ile	Ala	Gln	Leu	Phe	Phe	Leu	His	Phe	Ala	Gly	Ala	Ser	Glu	Met	100	105	110
Phe	Leu	Leu	Thr	Val	Met	Ala	Phe	Asp	Leu	Tyr	Thr	Ala	Ile	Cys	Arg	115	120	125
Pro	Leu	His	Tyr	Ala	Thr	Ile	Met	Asn	Gln	Arg	Leu	Cys	Cys	Ile	Leu	130	135	140
Val	Ala	Leu	Ser	Trp	Arg	Gly	Gly	Phe	Ile	His	Ser	Ile	Ile	Gln	Val	145	150	155
Ala	Leu	Ile	Val	Arg	Leu	Pro	Phe	Cys	Gly	Pro	Asn	Glu	Leu	Asp	Ser	165	170	175
Tyr	Phe	Cys	Asp	Ile	Thr	Gln	Val	Val	Arg	Ile	Ala	Cys	Ala	Asn	Thr	180	185	190
Phe	Pro	Glu	Glu	Leu	Val	Met	Ile	Cys	Ser	Ser	Gly	Leu	Ile	Ser	Val	195	200	205
Val	Cys	Leu	Ile	Ala	Leu	Leu	Met	Ser	Tyr	Ala	Phe	Leu	Leu	Ala	Leu	210	215	220
Phe	Lys	Lys	Leu	Ser	Gly	Ser	Gly	Glu	Asn	Thr	Asn	Arg	Ala	Met	Ser	225	230	235
Thr	Cys	Tyr	Ser	His	Ile	Thr	Ile	Val	Val	Leu	Met	Phe	Gly	Pro	Ser	245	250	255
Ile	Tyr	Ile	Tyr	Ala	Arg	Pro	Phe	Asp	Ser	Phe	Ser	Leu	Asp	Lys	Val	260	265	270
Val	Ser	Val	Phe	Asn	Thr	Leu	Ile	Phe	Pro	Leu	Arg	Asn	Pro	Ile	Ile	275	280	285
Tyr	Thr	Leu	Arg	Asn	Lys	Glu	Val	Lys	Ala	Ala	Met	Arg	Lys	Leu	Val	290	295	300
Thr	Lys	Tyr	Ile	Leu	Cys	Lys	Glu	Lys								305	310	

<210> 196
 <211> 942
 <212> DNA
 <213> Homo sapiens

<400> 196

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ccagaggtcc aactagtcct atttgttata tttctatcct tctatttggt catcctacca 120
ggaaatatcc ttatcatttg caccatcagt ctagaccctc atctgacctc tcctatgtat 180
ttcctgttgg ctaatctggc cttccttgat atttggtact cttccattac agcccctgaa 240
atgctcatag acttctttgt ggagaggaag ataatttctt ttgatggatg cattgcacag 300
ctcttcttct tacactttgc tggggcttcg gagatgttct tgctcacagt gatggccttt 360
gacctctaca ctgctatctg ccgaccctc cactatgcta ccatcatgaa tcaacgtctc 420
tgctgtatcc tgggtggctct ctcttgagg gggggcttca ttcattctat catacagggtg 480
gctctcattg ttcgacttcc tttctgtggc cccaatgagt tagacagtta cttctgtgac 540
atcacacagg ttgtccggat tgctgtgcc aacaccctcc cagaggagtt agtgatgatc 600
tgtagtagtg gtctgatctc tgtggtgtgt ttgattgctc tgtaaagtgc ctatgccttc 660
cttctggcct tgttcaagaa actttcaggc tcaggtgaga ataccaacag ggccatgtcc 720
acctgctatt cccacattac cattgtggtg ctaatgtttg ggccatccat ctacatttat 780
gctcgcccat ttgactcgtt ttccctagat aaagtgggtg ctgtgttcaa tactttaata 840
ttccctttac gtaatcccat tatttacaca ttgagaaaca aggaagtaaa ggcagccatg 900
aggaagtggg tcaccaaata tattttgtgt aaagagaagt ga 942
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<210> 197

<211> 316

<212> PRT

<213> Homo sapiens

<400> 197

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Met Glu Leu Trp Asn Phe Thr Leu Gly Ser Gly Phe Ile Leu Val Gly
 1             5             10             15

Ile Leu Asn Asp Ser Gly Ser Pro Glu Leu Leu Cys Ala Thr Ile Thr
      20             25             30

Ile Leu Tyr Leu Leu Ala Leu Ile Ser Asn Gly Leu Leu Leu Leu Ala
      35             40             45

Ile Thr Met Glu Ala Arg Leu His Met Pro Met Tyr Leu Leu Leu Gly
      50             55             60

Gln Leu Ser Leu Met Asp Leu Leu Phe Thr Ser Val Val Thr Pro Lys
      65             70             75             80

Ala Leu Ala Asp Phe Leu Arg Arg Glu Asn Thr Ile Ser Phe Gly Gly
      85             90             95

Cys Ala Leu Gln Met Phe Leu Ala Leu Thr Met Gly Gly Ala Glu Asp
      100             105             110

Leu Leu Leu Ala Phe Met Ala Tyr Asp Arg Tyr Val Ala Ile Cys His
      115             120             125

Pro Leu Thr Tyr Met Thr Leu Met Ser Ser Arg Ala Cys Trp Leu Met
      130             135             140

Val Ala Thr Ser Trp Ile Leu Ala Ser Leu Ser Ala Leu Ile Tyr Thr
      145             150             155             160

Val Tyr Thr Met His Tyr Pro Phe Cys Arg Ala Gln Glu Ile Arg His
```


	165		170		175
Leu Leu Cys Glu Ile Pro His Leu Leu Lys Val Ala Cys Ala Asp Thr	180		185		190
Ser Arg Tyr Glu Leu Met Val Tyr Val Met Gly Val Thr Phe Leu Ile	195		200		205
Pro Ser Leu Ala Ala Ile Leu Ala Ser Tyr Thr Gln Ile Leu Leu Thr	210		215		220
Val Leu His Met Pro Ser Asn Glu Gly Arg Lys Lys Ala Leu Val Thr	225		230		240
Cys Ser Ser His Leu Thr Val Val Gly Met Phe Tyr Gly Ala Ala Thr	245		250		255
Phe Met Tyr Val Leu Pro Ser Ser Phe His Ser Thr Arg Gln Asp Asn	260		265		270
Ile Ile Ser Val Phe Tyr Thr Ile Val Thr Pro Ala Leu Asn Pro Leu	275		280		285
Ile Tyr Ser Leu Arg Asn Lys Glu Val Met Arg Ala Leu Arg Arg Val	290		295		300
Leu Gly Lys Tyr Met Leu Pro Ala His Ser Thr Leu	305		310		315

<210> 198
 <211> 951
 <212> DNA
 <213> Homo sapiens

<400> 198
 atggagctct ggaacttcac cttgggaagt ggcttcattt tgggtggggat tctgaatgac 60
 agtgggtctc ctgaactgct ctgtgctaca attacaatcc tatacttggt ggccctgac 120
 agcaatggcc tactgctcct ggctatcacc atggaagccc ggctccacat gcccatgtac 180
 ctctgcttg ggcagctctc tctcatggac ctctgttca catctgttgt cactcccaag 240
 gcccttgccg actttctgcg cagagaaaac accatctcct ttggaggctg tgcccttcag 300
 atgttctcgg cactgacaat ggggtggtgct gaggacctcc tactggcctt catggcctat 360
 gacaggatat tggccatttg tcatcctctg acatacatga cctcatgag ctcaagagcc 420
 tgctggtcca tgggtggccac gtcttgatc ctggcatccc taagtgccct aatatatacc 480
 gtgtatacca tgcactatcc cttctgcagg gccaggaga tcaggcatct tctctgtgag 540
 atcccacact tgctgaaggt ggctgtgct gatacctcca gatatgagct catggtatat 600
 gtgatgggtg tgaccttctt gattccctct cttgctgcta tactggcctc ctatacaca 660
 attctactca ctgtgtcca tatgccatca aatgagggga ggaagaaagc ctttgtcacc 720
 tgctcttccc acctgactgt ggttgggatg ttctatggag ctgccacatt catgtatgtc 780
 ttgcccagtt ccttcacag caccagacaa gacaacatca tctctgtttt ctacacaatt 840
 gtcactccag cctgaatcc actcatctac agcctgagga ataaggaggt catgcggggc 900
 ttgaggaggg tcctgggaaa atacatgctg ccagcacact ccacgctcta g 951

<210> 199
 <211> 330
 <212> PRT

<213> Homo sapiens

<400> 199

Met	Cys	Ser	Phe	Phe	Leu	Cys	Gln	Thr	Gly	Lys	Gln	Ala	Lys	Ile	Ser
1				5					10					15	
Met	Gly	Glu	Glu	Asn	Gln	Thr	Phe	Val	Ser	Lys	Phe	Ile	Phe	Leu	Gly
			20					25					30		
Leu	Ser	Gln	Asp	Leu	Gln	Thr	Gln	Ile	Leu	Leu	Phe	Ile	Leu	Phe	Leu
		35					40					45			
Ile	Ile	Tyr	Leu	Leu	Thr	Val	Leu	Gly	Asn	Gln	Leu	Ile	Ile	Ile	Leu
	50					55					60				
Ile	Phe	Leu	Asp	Ser	Arg	Leu	His	Thr	Pro	Met	Tyr	Phe	Phe	Leu	Arg
65					70					75					80
Asn	Leu	Ser	Phe	Ala	Asp	Leu	Cys	Phe	Ser	Thr	Ser	Ile	Val	Pro	Gln
				85					90					95	
Val	Leu	Val	His	Phe	Leu	Val	Lys	Arg	Lys	Thr	Ile	Ser	Phe	Tyr	Gly
			100					105					110		
Cys	Met	Thr	Gln	Ile	Ile	Val	Phe	Leu	Leu	Val	Gly	Cys	Thr	Glu	Cys
		115					120					125			
Ala	Leu	Leu	Ala	Val	Met	Ser	Tyr	Asp	Arg	Tyr	Val	Ala	Val	Cys	Lys
	130					135					140				
Pro	Leu	Tyr	Tyr	Ser	Thr	Ile	Met	Thr	Gln	Arg	Val	Cys	Leu	Trp	Leu
145					150					155					160
Ser	Phe	Arg	Ser	Trp	Ala	Ser	Gly	Ala	Leu	Val	Ser	Leu	Val	Asp	Thr
			165						170					175	
Ser	Phe	Thr	Phe	His	Leu	Pro	Tyr	Trp	Gly	Gln	Asn	Ile	Ile	Asn	His
		180						185					190		
Tyr	Phe	Cys	Glu	Pro	Pro	Ala	Leu	Leu	Lys	Leu	Ala	Ser	Ile	Asp	Thr
		195					200					205			
Tyr	Ser	Thr	Glu	Met	Ala	Ile	Phe	Ser	Met	Gly	Val	Val	Ile	Leu	Leu
	210					215					220				
Ala	Pro	Val	Ser	Leu	Ile	Leu	Gly	Ser	Tyr	Trp	Asn	Ile	Ile	Ser	Thr
225					230					235					240
Val	Ile	Gln	Met	Gln	Ser	Gly	Glu	Gly	Arg	Leu	Lys	Ala	Phe	Ser	Thr
			245						250					255	
Cys	Gly	Ser	His	Leu	Ile	Val	Val	Val	Leu	Phe	Tyr	Gly	Ser	Gly	Ile
		260						265					270		
Phe	Thr	Tyr	Met	Arg	Pro	Asn	Ser	Lys	Thr	Thr	Lys	Glu	Leu	Asp	Lys
		275					280					285			

Met Ile Ser Val Phe Tyr Thr Ala Val Thr Pro Met Leu Asn Pro Ile
 290 295 300

Ile Tyr Ser Leu Arg Asn Lys Asp Val Lys Gly Ala Leu Arg Lys Leu
 305 310 315 320

Val Gly Arg Lys Cys Phe Ser His Arg Gln
 325 330

<210> 200
 <211> 993
 <212> DNA
 <213> Homo sapiens

<400> 200
 atgtgttctt ttttcttggtg ccaaacaggt aaacaggcaa aaatatcaat gggagaagaa 60
 aaccaaacct ttgtgtccaa gtttatcttc ctgggtcttt cacaggactt gcagaccag 120
 atcctgctat ttatcctttt cctcatcatt tatctgctga ccgtgcttg aaaccagctc 180
 atcatcattc tcattcttct ggattctcgc cttcacactc ccatgtattt ttttcttaga 240
 aatctctcct ttgcagatct ctgtttctct actagcattg tccctcaagt gttgggtcac 300
 ttcttggtaa agaggaacac catttctttt tatgggtgta tgacacagat aattgtcttt 360
 cttctgggtg ggtgtacaga gtgtgcgctg ctggcagtga tgtcctatga ccggtatgtg 420
 gctgtctgca agccctgtga ctactctacc atcatgacac aacgggtgtg tctctggctg 480
 tccttcaggt cctgggccag tggggcacta gtgtctttag tagataccag ctttactttc 540
 catcttcctt actggggaca gaataataatc aatcactact tttgtgaacc tcctgccctc 600
 ctgaagctgg cttccataga caattacagc acagaaatgg ccatcttttc aatgggctgtg 660
 gtaatcctcc tggccctgt ctccctgatt cttggttctt attggaatat tatctccact 720
 gttatccaga tgcagtctgg ggaagggaga ctcaaggctt ttccacctg tggctcccat 780
 cttattgttg ttgtcctctt ctatgggtca ggaatatcca cctacatgcg accaaactcc 840
 aagactacaa aagaactgga taaaatgata tctgtgttct atacagcggg gactccaatg 900
 ttgaaccca taatttatag cttgaggaac aaagatgtca aaggggctct caggaaacta 960
 gttgggagaa agtgcttctc tcataggcag tga 993

<210> 201
 <211> 317
 <212> PRT
 <213> Homo sapiens

<400> 201
 Met Leu Arg Asn Gly Ser Ile Val Thr Glu Phe Ile Leu Val Gly Phe
 1 5 10 15
 Gln Gln Ser Ser Thr Ser Thr Arg Ala Leu Leu Phe Ala Leu Phe Leu
 20 25 30
 Ala Leu Tyr Ser Leu Thr Met Ala Met Asn Gly Leu Ile Ile Phe Ile
 35 40 45
 Thr Ser Trp Thr Asp Pro Lys Leu Asn Ser Pro Met Tyr Phe Phe Leu
 50 55 60
 Gly His Leu Ser Leu Leu Asp Val Cys Phe Ile Thr Thr Thr Ile Pro
 65 70 75 80
 Gln Met Leu Ile His Leu Val Val Arg Asp His Ile Val Ser Phe Val

85					90					95					
Cys	Cys	Met	Thr	Gln	Met	Tyr	Phe	Val	Phe	Cys	Val	Gly	Val	Ala	Glu
			100					105					110		
Cys	Ile	Leu	Leu	Ala	Phe	Met	Ala	Tyr	Asp	Arg	Tyr	Val	Ala	Ile	Cys
		115					120					125			
Tyr	Pro	Leu	Asn	Tyr	Val	Pro	Ile	Ile	Ser	Gln	Lys	Val	Cys	Val	Arg
	130					135					140				
Leu	Val	Gly	Thr	Ala	Trp	Phe	Phe	Gly	Leu	Ile	Asn	Gly	Ile	Phe	Leu
145					150					155					160
Glu	Tyr	Ile	Ser	Phe	Arg	Glu	Pro	Phe	Arg	Arg	Asp	Asn	His	Ile	Glu
				165					170					175	
Ser	Phe	Phe	Cys	Glu	Ala	Pro	Ile	Val	Ile	Gly	Leu	Ser	Cys	Gly	Asp
			180					185					190		
Pro	Gln	Phe	Ser	Leu	Trp	Ala	Ile	Phe	Ala	Asp	Ala	Ile	Val	Val	Ile
		195					200					205			
Leu	Ser	Pro	Met	Val	Leu	Thr	Val	Thr	Ser	Tyr	Val	His	Ile	Leu	Ala
	210					215					220				
Thr	Ile	Leu	Ser	Lys	Ala	Ser	Ser	Ser	Gly	Arg	Gly	Lys	Thr	Phe	Ser
225				230						235					240
Thr	Cys	Ala	Ser	His	Leu	Thr	Val	Val	Ile	Phe	Leu	Tyr	Thr	Ser	Ala
				245					250					255	
Met	Phe	Ser	Tyr	Met	Asn	Pro	His	Ser	Thr	His	Gly	Pro	Asp	Lys	Asp
			260					265					270		
Lys	Pro	Phe	Ser	Leu	Leu	Tyr	Thr	Ile	Ile	Thr	Pro	Met	Cys	Asn	Pro
		275					280					285			
Ile	Ile	Tyr	Ser	Phe	Arg	Asn	Lys	Glu	Ile	Lys	Glu	Ala	Met	Val	Arg
	290					295					300				
Ala	Leu	Gly	Arg	Thr	Arg	Leu	Ala	Gln	Pro	Gln	Ser	Val			
305					310					315					

<210> 202

<211> 954

<212> DNA

<213> Homo sapiens

<400> 202

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atgctaagga atggcagcat agtgacggaa tttatcctcg tgggctttca gcagagctcc 60
acttccacac gagcattgct ctttgccctc ttcttggccc tctacagcct caccatggcc 120
atgaatggcc tcatcatctt taccacctcc tggacagacc ccaagctcaa cagcccatg 180
tacttcttcc tcggccatct gtctctctcg gatgtctgct tcatcaccac taccatccca 240
cagatgttga tccacctcgt ggtcaggagc cacattgtct cctttgtatg ttgcatgacc 300
cagatgtact ttgtcttctg tggtgggtgtg gccagagtga tcctcttggc tttcatggcc 360

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tatgaccgtt atgttgctat ctgctaccca cttaactatg tcccgatcat aagccagaag 420
gtctgtgtca ggcttggtgg aactgcctgg ttctttgggc tgatcaatgg catctttctc 480
gagtatatatt cattccgaga gcccttccgc agagacaacc acatagaaag cttcttctgt 540
gaggcccca tagtgattgg cctctcttgt ggggaccctc agtttagtct gtgggcaatc 600
tttgccgatg ccacgtgggt aattctcagc cccatgggtgc tcaactgtcac ttcctatgtg 660
cacatcctgg ccaccatcct cagcaaagcc tcctcctcag gtcgggggaa gactttctct 720
acttgtgcct ctcacctgac tgtgggtcatc tttctctaca cttcagctat gttctcttac 780
atgaaccccc acagcacaca tgggcctgac aaagacaaac ctttctccct cctgtacacc 840
atcattaccc ccatgtgcaa ccccatcatt tatagtttcc gcaacaagga aattaaggag 900
gccatggtga gggcacttgg aagaaccagg ctggcccagc cacagtctgt ctag 954

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<210> 203
 <211> 316
 <212> PRT
 <213> Homo sapiens

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<400> 203
Met Lys Ile Ala Asn Asn Thr Val Val Thr Glu Phe Ile Leu Leu Gly
  1             5             10            15

Leu Thr Gln Ser Gln Asp Ile Gln Leu Leu Val Phe Val Leu Ile Leu
      20             25            30

Ile Phe Tyr Leu Ile Ile Leu Pro Gly Asn Phe Leu Ile Ile Phe Thr
      35             40            45

Ile Arg Ser Asp Pro Gly Leu Thr Ala Pro Leu Tyr Leu Phe Leu Gly
      50             55            60

Asn Leu Ala Phe Leu Asp Ala Ser Tyr Ser Phe Ile Val Ala Pro Arg
      65             70            75            80

Met Leu Val Asp Phe Leu Ser Glu Lys Lys Val Ile Ser Tyr Arg Gly
      85             90            95

Cys Ile Thr Gln Leu Phe Phe Leu His Phe Leu Gly Gly Gly Glu Gly
      100            105            110

Leu Leu Leu Val Val Met Ala Phe Asp Arg Tyr Ile Ala Ile Cys Arg
      115            120            125

Pro Leu His Cys Ser Thr Val Met Asn Pro Arg Ala Cys Tyr Ala Met
      130            135            140

Met Leu Ala Leu Trp Leu Gly Gly Phe Val His Ser Ile Ile Gln Val
      145            150            155            160

Val Leu Ile Leu Arg Leu Pro Phe Cys Gly Pro Asn Gln Leu Asp Asn
      165            170            175

Phe Phe Cys Asp Val Arg Gln Val Ile Lys Leu Ala Cys Thr Asp Met
      180            185            190

Phe Val Val Glu Leu Leu Met Val Phe Asn Ser Gly Leu Met Thr Leu
      195            200            205

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Leu Cys Phe Leu Gly Leu Leu Ala Ser Tyr Ala Val Ile Leu Cys His
 210 215 220
 Val Arg Arg Ala Ala Ser Glu Gly Lys Asn Lys Ala Met Ser Thr Cys
 225 230 235 240
 Thr Thr Arg Val Ile Ile Ile Leu Leu Met Phe Gly Pro Ala Ile Phe
 245 250 255
 Ile Tyr Met Cys Pro Phe Arg Ala Leu Pro Ala Asp Lys Met Val Ser
 260 265 270
 Leu Phe His Thr Val Ile Phe Pro Leu Met Asn Pro Met Ile Tyr Thr
 275 280 285
 Leu Arg Asn Gln Glu Val Lys Thr Ser Met Lys Arg Leu Leu Ser Arg
 290 295 300
 His Val Val Cys Gln Val Asp Phe Ile Ile Arg Asn
 305 310 315

<210> 204
 <211> 951
 <212> DNA
 <213> Homo sapiens

<400> 204
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 caagatatcc agctcttggt ctttgtgctg atcttaattt tctaccttat catcctccct 120
 ggaaattttc tcattatttt caccataagg tcagaccctg ggctcacagc cccctcttat 180
 ttatttctgg gcaacttggc cttcctggat gcacacctact ccttcattgt ggctcccagg 240
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 ctctttttct tgcacttctt tggaggaggg gagggattac tccttggtgt gatggccttt 360
 gaccgctaca tcgccatctg ccggcctctg cactgttcaa ctgtcatgaa ccctagagcc 420
 tgctatgcaa tgatgttggc tctgtggctt ggggggtttt tccactccat tatccagggtg 480
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 accactcgtg tcattattat acttcttatg tttggacctg ctatcttcat ctacatgtgc 780
 cctttcaggg ccttaccagc tgacaagatg gtttctctct ttcacacagt gatctttcca 840
 ttgatgaatc ctatgattta tacccttcgc aaccaggaag tgaaaacttc catgaagagg 900
 ttattgagtc gacatgtagt ctgtcaagtg gattttataa taagaaactg a 951

<210> 205
 <211> 338
 <212> PRT
 <213> Homo sapiens

<400> 205
 Met Cys Tyr Ile Tyr Leu Ile Phe Lys Glu Trp Thr Leu Ile Phe Tyr
 1 5 10 15
 Phe Ser Leu Leu Leu Phe Leu Gln Ile Thr Pro Ala Ile Met Ala Asn
 20 25 30

Leu Thr Ile Val Thr Glu Phe Ile Leu Met Gly Phe Ser Thr Asn Lys
 35 40 45
 Asn Met Cys Ile Leu His Ser Ile Leu Phe Leu Leu Ile Tyr Leu Cys
 50 55 60
 Ala Leu Met Gly Asn Val Leu Ile Ile Met Ile Thr Thr Leu Asp His
 65 70 75 80
 His Leu His Thr Pro Val Tyr Phe Phe Leu Lys Asn Leu Ser Phe Leu
 85 90 95
 Asp Leu Cys Leu Ile Ser Val Thr Ala Pro Lys Ser Ile Ala Asn Ser
 100 105 110
 Leu Ile His Asn Asn Ser Ile Ser Phe Leu Gly Cys Val Ser Gln Val
 115 120 125
 Phe Leu Leu Leu Ser Ser Ala Ser Ala Glu Leu Leu Leu Leu Thr Val
 130 135 140
 Met Ser Phe Asp Arg Tyr Thr Ala Ile Cys His Pro Leu His Tyr Asp
 145 150 155 160
 Val Ile Met Asp Arg Ser Thr Cys Val Gln Arg Ala Thr Val Ser Trp
 165 170 175
 Leu Tyr Gly Gly Leu Ile Ala Val Met His Thr Ala Gly Thr Phe Ser
 180 185 190
 Leu Ser Tyr Cys Gly Ser Asn Met Val His Gln Phe Phe Cys Asp Ile
 195 200 205
 Pro Gln Leu Leu Ala Ile Ser Cys Ser Glu Asn Leu Ile Arg Glu Ile
 210 215 220
 Ala Leu Ile Leu Ile Asn Val Val Leu Asp Phe Cys Cys Phe Ile Val
 225 230 235 240
 Ile Ile Ile Thr Tyr Val His Val Phe Ser Thr Val Lys Lys Ile Pro
 245 250 255
 Ser Thr Glu Gly Gln Ser Lys Ala Tyr Ser Ile Cys Leu Pro His Leu
 260 265 270
 Leu Val Val Leu Phe Leu Ser Thr Gly Phe Ile Ala Tyr Leu Lys Pro
 275 280 285
 Ala Ser Glu Ser Pro Ser Ile Leu Asp Ala Val Ile Ser Val Phe Tyr
 290 295 300
 Thr Met Leu Pro Pro Thr Phe Asn Pro Ile Ile Tyr Ser Leu Arg Asn
 305 310 315 320
 Lys Ala Ile Lys Val Ala Leu Gly Met Leu Ile Lys Gly Lys Leu Thr
 325 330 335

Lys Lys

<210> 206
<211> 1017
<212> DNA
<213> Homo sapiens

<400> 206
atgtgttata tatatttaaat attttaaagag tggacattga tattttactt cagtcttctc 60
cttttcctgc agattactcc tgcaataatg gcaaatctca caatcgtgac tgaatttatc 120
cttatggggt tttctaccaa taaaaaatatg tgcattttgc attcgattct cttcttggtg 180
atttatttgt gtgccctgat ggggaatgct ctcattatca tgatcacaac tttggaccat 240
catctccaca cccccgtgta tttcttcttg aagaatctat ctttcttgga tctctgcctt 300
atttcagtca cggctcccaa atctatcgcc aattctttga tacacaacaa ctccatttca 360
ttccttggct gtgtttccca ggtctttttg ttgctttctt cagcatctgc agagctgctc 420
ctcctcacgg tgatgtcctt tgaccgctat actgctatat gtcaccctct gcactatgat 480
gtcatcatgg acaggagcac ctgtgtccaa agagccactg tgtcttggct gtatgggggt 540
ctgattgctg tgatgcacac agctggcacc ttctccttat cctactgtgg gtccaacatg 600
gtccatcagt tcttctgtga cattccccag ttattagcta tttcttgctc agaaaattta 660
ataagagaaa ttgcactcat ccttattaat gtagttttgg atttctgctg ttttattgtc 720
atcatcatta cctatgtcca cgtcttctct acagtcaaga agatcccttc cacagaaggc 780
cagtcaaaag cctactctat ttgccttcca cacttgctgg ttgtgttatt tctttccact 840
ggattcattg cttatctgaa gccagcttca gagtctcctt ctattttgga tgctgtaatt 900
tctgtgttct acactatgct gcccccaacc tttaatccca ttatatacag tttgagaaac 960
aaggccataa aggtggctct ggggatgttg ataaagggaa agctcaccaa aaagtaa 1017

<210> 207
<211> 342
<212> PRT
<213> Homo sapiens

<400> 207
Met Lys Phe Trp His Gly Phe Ser Ser His Leu Asn Pro Met Phe Ser
1 5 10 15
Ser Phe Leu Leu Tyr Leu Ser Leu Pro Trp Ile Asn Thr Thr Ile Gln
20 25 30
Ala Trp Leu Asn Leu Cys Ser Leu Ala Leu Pro Val Trp Ala Met Ser
35 40 45
Gly Ala Gly Phe Leu Ser Cys Cys Tyr Trp His Thr Cys Ser Pro Ser
50 55 60
Val Val Thr Cys Ser Ser Ser Gln Ser Ser Asp Trp Met Gln Leu Cys
65 70 75 80
Thr His Leu Cys Thr Thr Leu Ser Val Phe Phe Pro Ser Trp Ser Cys
85 90 95
Gly Ile Gln Leu Pro Leu Ser Leu Arg Cys Cys Leu Ile Phe Ser Val
100 105 110

Arg Arg Lys Pro Phe Leu Leu Gln Asp Ala Ser Phe Arg Pro Thr Ser
 115 120 125
 Ser Thr Pro Trp Gly Ala Cys Glu Cys Tyr Leu Leu Thr Ala Met Ala
 130 135 140
 Tyr Asp Arg Tyr Leu Ala Ile Cys Arg Pro Leu His Tyr Pro Ile Ile
 145 150 155 160
 Met Thr Thr Thr Leu Cys Ala Lys Met Ala Ala Ala Cys Trp Thr Cys
 165 170 175
 Gly Phe Leu Cys Pro Ile Ser Glu Val Ile Leu Ala Ser Gln Leu Pro
 180 185 190
 Phe Cys Ala Tyr Asn Glu Ile Gln His Ile Phe Cys Asp Phe Pro Pro
 195 200 205
 Leu Leu Ser Leu Ala Cys Lys Asp Thr Ser Ala Asn Ile Leu Val Asp
 210 215 220
 Phe Ala Ile Asn Ala Phe Ile Ile Leu Ile Thr Phe Phe Phe Ile Met
 225 230 235 240
 Ile Ser Tyr Ala Arg Ile Ile Gly Ala Val Leu Lys Ile Lys Thr Ala
 245 250 255
 Ser Gly Arg Lys Lys Ala Phe Ser Thr Cys Ala Ser His Leu Ala Val
 260 265 270
 Val Leu Ile Phe Phe Gly Ser Ile Ile Phe Met Tyr Val Arg Leu Lys
 275 280 285
 Lys Ser Tyr Ser Leu Thr Leu Asp Arg Thr Leu Ala Ile Val Tyr Ser
 290 295 300
 Val Leu Thr Pro Met Val Asn Pro Ile Ile Tyr Ser Leu Arg Asn Lys
 305 310 315 320
 Glu Ile Ile Lys Ala Ile Lys Arg Thr Ile Phe Gln Lys Gly Asp Lys
 325 330 335
 Ala Ser Leu Ala His Leu
 340

<210> 208
 <211> 1053
 <212> DNA
 <213> Homo sapiens

<400> 208
 atgtgtcaac aaatcttacg ggattgcatt cttctcatat atcatttgtg cattaacagg 60
 aaaaaagtct cacttgtgat gctgggtcca gcttataacc acacaatgga aaccctgcc 120
 tccttcctcc ttgtgggtat cccaggactg caatcttcac atctttggct ggctatctca 180
 ctgagtgcc tgtacatcat agccctgtta ggaaacacca tcatcgtgac tgcaatctgg 240
 atggattcca ctcggcatga gcccatgtat tgctttctgt gtgttctggc tgctgtggac 300

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attggttatgg cctcctcggg ggtacccaag atggtgagca tcttctgctc aggagacagc 360
tcaatcagct ttagtgcttg tttcactcag atgttttttg tccacttagc cacagctgtg 420
gagacggggc tgctgctgac catggctttt gaccgctatg tagccatctg caagcctcta 480
cactacaaga gaattctcac gcctcaagtg atgctgggaa tgagtatggc catcaccatc 540
agagctatca tagccataac tccactgagt tggatggtga gtcacttacc tttctgtggc 600
tccaatgtgg ttgtccactc ctactgtgag cacatagctt tggccagggt agcatgtgct 660
gaccccgctc ccagcagctc ctacagctct attggttcct ctcttatggt gggctctgat 720
gtggccttca ttgctgcctc ctatatctta attctcaagg cagtatttgg tctctcctca 780
aagactgctc agttgaaagc attaagcaca tgtggctccc atgtgggggt tatggctttg 840
tactatctac ctgggatggc atccatctat gcggcctggt tggggcagga tgtagtgccc 900
ttgcacaccc aagtctgct agctgacctg tacgtgatca tcccagccac cttaaatccc 960
atcatctatg gcatgaggac caaacaactg cgggagagaa tatggagtta tctgatgcat 1020
gtcctctttg accattccaa cctgggttca tga 1053

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<210> 209
<211> 309
<212> PRT
<213> Homo sapiens

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<400> 209
Met Glu Arg Ile Asn His Thr Ser Ser Val Ser Glu Phe Ile Leu Leu
  1             5             10             15

Gly Leu Ser Ser Arg Pro Glu Asp Gln Lys Thr Leu Phe Val Leu Phe
          20             25             30

Leu Ile Val Tyr Leu Val Thr Ile Thr Gly Asn Leu Leu Ile Ile Leu
   35             40             45

Ala Ile Arg Phe Asn Pro His Leu Gln Thr Pro Met Tyr Phe Phe Leu
   50             55             60

Ser Phe Leu Ser Leu Thr Asp Ile Cys Phe Thr Thr Ser Val Val Pro
   65             70             75             80

Lys Met Leu Met Asn Phe Leu Ser Glu Lys Lys Thr Ile Ser Tyr Ala
          85             90             95

Gly Cys Leu Thr Gln Met Tyr Phe Leu Tyr Ala Leu Gly Asn Ser Asp
   100             105             110

Ser Cys Leu Leu Ala Val Met Ala Phe Asp Arg Tyr Val Ala Val Cys
   115             120             125

Asp Pro Phe His Tyr Val Thr Thr Met Ser His His His Cys Val Leu
   130             135             140

Leu Val Ala Phe Ser Cys Ser Phe Pro His Leu His Ser Leu Leu His
   145             150             155             160

Thr Leu Leu Leu Asn Arg Leu Thr Phe Cys Asp Ser Asn Val Ile His
          165             170             175

His Phe Leu Cys Asp Leu Ser Pro Val Leu Lys Leu Ser Cys Ser Ser
   180             185             190

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Ile Phe Val Asn Glu Ile Val Gln Met Thr Glu Ala Pro Ile Val Leu
195 200 205

Val Thr Arg Phe Leu Cys Ile Ala Phe Ser Tyr Ile Arg Ile Leu Thr
210 215 220

Thr Val Leu Lys Ile Pro Ser Thr Ser Gly Lys Arg Lys Ala Phe Ser
225 230 235 240

Thr Cys Gly Phe Tyr Leu Thr Val Val Thr Leu Phe Tyr Gly Ser Ile
245 250 255

Phe Cys Val Tyr Leu Gln Pro Pro Ser Thr Tyr Ala Val Lys Asp His
260 265 270

Val Ala Thr Ile Val Tyr Thr Val Leu Ser Ser Met Leu Asn Pro Phe
275 280 285

Ile Tyr Ser Leu Arg Asn Lys Asp Leu Lys Gln Gly Leu Arg Lys Leu
290 295 300

Met Ser Lys Arg Ser
305

<210> 210
<211> 930
<212> DNA
<213> Homo sapiens

<400> 210
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cggcctgagg accaaaagac actctttgtt ctcttctctca tcgtgtacct ggtcaccata 120
acagggaacc tgctcatcat cctggccatt cgcttcaacc cccatcttca gaccctatg 180
tatttcttct tgagttttct gtctctcact gatatttgct ttacaacaag cgttgtcccc 240
aagatgctga tgaacttctt gtcagaaaag aagaccatct cctatgctgg gtgtctgaca 300
cagatgtatt ttctctatgc cttgggcaac agtgacagct gccttctggc agtcatggcc 360
tttgaccgct atgtggccgt ctgtgacct ttccactatg tcaccaccat gagccaccac 420
cactgtgtcc tgctgggtggc cttctctctgc tcatttctct acctccactc actcctgcac 480
acacttctgc tgaatcgtct caccttctgt gactccaatg ttatccacca ctttctctgt 540
gacctcagcc ctgtgctgaa attgtcctgc tcttccatat ttgtcaatga aattgtgcag 600
atgacagaag cacctattgt tttgggtgact cgttttctct gcattgcttt ctcttatata 660
cgaatcctca ctacagttct caagattccc tctacttctg ggaaacgcaa agccttctcc 720
acctgtgggt tttacctcac cgtgggtgacg ctcttttatg gaagcatctt ctgtgtctat 780
ttacagcccc catccaccta cgctgtcaag gaccacgtgg caacaattgt ttacacagtt 840
ttgtcatcca tgctcaatcc ttttatctac agcctgagaa acaaagacct gaaacagggc 900
ctgaggaagc ttatgagcaa gagatcctag 930

<210> 211
<211> 330
<212> PRT
<213> Homo sapiens

<400> 211
Met Glu Gly Phe Tyr Leu Arg Arg Ser His Glu Leu Gln Gly Met Gly
1 5 10 15

Lys Pro Gly Arg Val Asn Gln Thr Thr Val Ser Asp Phe Leu Leu Leu
 20 25 30
 Gly Leu Ser Glu Trp Pro Glu Glu Gln Pro Leu Leu Phe Gly Ile Phe
 35 40 45
 Leu Gly Met Tyr Leu Val Thr Met Val Gly Asn Leu Leu Ile Ile Leu
 50 55 60
 Ala Ile Ser Ser Asp Pro His Leu His Thr Pro Met Tyr Phe Phe Leu
 65 70 75 80
 Ala Asn Leu Ser Leu Thr Asp Ala Cys Phe Thr Ser Ala Ser Ile Pro
 85 90 95
 Lys Met Leu Ala Asn Ile His Thr Gln Ser Gln Ile Ile Ser Tyr Ser
 100 105 110
 Gly Cys Leu Ala Gln Leu Tyr Phe Leu Leu Met Phe Gly Gly Leu Asp
 115 120 125
 Asn Cys Leu Leu Ala Val Met Ala Tyr Asp Arg Tyr Val Ala Ile Cys
 130 135 140
 Gln Pro Leu His Tyr Ser Thr Ser Met Ser Pro Gln Leu Cys Ala Leu
 145 150 155 160
 Met Leu Gly Val Cys Trp Val Leu Thr Asn Cys Pro Ala Leu Met His
 165 170 175
 Thr Leu Leu Leu Thr Arg Val Ala Phe Cys Ala Gln Lys Ala Ile Pro
 180 185 190
 His Phe Tyr Cys Asp Pro Ser Ala Leu Leu Lys Leu Ala Cys Ser Asp
 195 200 205
 Thr His Val Asn Glu Leu Met Ile Ile Thr Met Gly Leu Leu Phe Leu
 210 215 220
 Thr Val Pro Leu Leu Leu Ile Val Phe Ser Tyr Val Arg Ile Phe Trp
 225 230 235 240
 Ala Val Phe Val Ile Ser Ser Pro Gly Gly Arg Trp Lys Ala Phe Ser
 245 250 255
 Thr Cys Gly Ser His Leu Thr Val Val Leu Leu Phe Tyr Gly Ser Leu
 260 265 270
 Met Gly Val Tyr Leu Leu Pro Pro Ser Thr Tyr Ser Thr Glu Arg Glu
 275 280 285
 Ser Arg Ala Ala Val Leu Tyr Met Val Ile Ile Pro Thr Leu Asn Pro
 290 295 300
 Phe Ile Tyr Ser Leu Arg Asn Arg Asp Met Lys Glu Ala Leu Gly Lys
 305 310 315 320

Leu Phe Val Ser Gly Lys Thr Phe Phe Leu
 325 330

<210> 212
 <211> 993
 <212> DNA
 <213> Homo sapiens

<400> 212
 atggaagggt tttatctgcg cagatcacac gaactacaag ggatgggaaa accaggcaga 60
 gtgaaccaaa ccactgtttc agacttccctc cttctaggac tctctgagtg gccagaggag 120
 cagcctcttc tgtttggcat cttccttggc atgtacctgg tcaccatggg ggggaacctg 180
 ctcatatcc tggccatcag ctctgacca cacctccata ctcccatgta cttctttctg 240
 gccaacctgt cattaactga tgctgtttc acttctgcct ccatcccaa aatgctggcc 300
 aacattcata cccagagtca gatcatctcg tattctgggt gtcttgaca gctatatttc 360
 ctccctatgt ttggtggcct tgacaactgc ctgctggctg tgatggcata tgaccgctat 420
 gtggccatct gccaacact ccattacagc acatctatga gtcccagct ctgtgcacta 480
 atgctgggtg tgtgctgggt gctaaccaac tgtcctgccc tgatgcacac actgttgctg 540
 acccgctgg ctttctgtgc ccagaaagcc atccctcatt tctattgtga tcctagtgtg 600
 ctctgaagc ttgctgtctc agatacccat gtaaaccgagc tgatgatcat caccatgggc 660
 ttgctgttcc tcaactgttc cctcctgctg atcgtcttct cctatgtccg cttttctg 720
 gctgtgtttg tcatctcatc tcctggaggg agatggaagg cttctctac ctgtggttct 780
 catctcacgg tggttctgct cttctatggg tctcttatgg gtgtgtattt acttcccca 840
 tcaacttact ctacagagag ggaaagtagg gctgctgttc tctatatggg gattattccc 900
 acgctaaacc cattcattta tagcttgagg aacagagaca tgaaggaggc tttgggtaaa 960
 ctttttgtca gtggaaaaac attcttttta tga 993

<210> 213
 <211> 312
 <212> PRT
 <213> Homo sapiens

<400> 213
 Met Asp Glu Ala Asn His Ser Val Val Ser Glu Phe Val Phe Leu Gly
 1 5 10 15
 Leu Ser Asp Ser Arg Lys Ile Gln Leu Leu Leu Phe Leu Phe Phe Ser
 20 25 30
 Val Phe Tyr Val Ser Ser Leu Met Gly Asn Leu Leu Ile Val Leu Thr
 35 40 45
 Val Thr Ser Asp Pro Arg Leu Gln Ser Pro Met Tyr Phe Leu Leu Ala
 50 55 60
 Asn Leu Ser Ile Ile Asn Leu Val Phe Cys Ser Ser Thr Ala Pro Lys
 65 70 75 80
 Met Ile Tyr Asp Leu Phe Arg Lys His Lys Thr Ile Ser Phe Gly Gly
 85 90 95
 Cys Val Val Gln Ile Phe Phe Ile His Ala Val Gly Gly Thr Glu Met
 100 105 110

Val Leu Leu Ile Ala Met Ala Phe Asp Arg Tyr Val Ala Ile Cys Lys
 115 120 125
 Pro Leu His Tyr Leu Thr Ile Met Asn Pro Gln Arg Cys Ile Leu Phe
 130 135 140
 Leu Val Ile Ser Trp Ile Ile Gly Ile Ile His Ser Val Ile Gln Leu
 145 150 155 160
 Ala Phe Val Val Asp Leu Leu Phe Cys Gly Pro Asn Glu Leu Asp Ser
 165 170 175
 Phe Phe Cys Asp Leu Pro Arg Phe Ile Lys Leu Ala Cys Ile Glu Thr
 180 185 190
 Tyr Thr Leu Gly Phe Met Val Thr Ala Asn Ser Gly Phe Ile Ser Leu
 195 200 205
 Ala Ser Phe Leu Ile Leu Ile Ile Ser Tyr Ile Phe Ile Leu Val Thr
 210 215 220
 Val Gln Lys Lys Ser Ser Gly Gly Ile Phe Lys Ala Phe Ser Met Leu
 225 230 235 240
 Ser Ala His Val Ile Val Val Val Leu Val Phe Gly Pro Leu Ile Phe
 245 250 255
 Phe Tyr Ile Phe Pro Phe Pro Thr Ser His Leu Asp Lys Phe Leu Ala
 260 265 270
 Ile Phe Asp Ala Val Ile Thr Pro Val Leu Asn Pro Val Ile Tyr Thr
 275 280 285
 Phe Arg Asn Lys Glu Met Met Val Ala Met Arg Arg Arg Cys Ser Gln
 290 295 300
 Phe Val Asn Tyr Ser Lys Ile Phe
 305 310

<210> 214

<211> 939

<212> DNA

<213> Homo sapiens

<400> 214

atggatgaag ccaatcactc tgtggtctct gagtttgtgt tcctgggact ctctgactcg 60
 cggaagatcc agctcctcct ctctcctctt ttctcagtggt tctatgtatc aagcctgatg 120
 ggaaatctcc tcatttgtgct aactgtgacc tctgaccctc gtttacagtc ccccatgtac 180
 ttctgctgg ccaacctttc catcatcaat ttggtatttt gttcctccac agctcccaag 240
 atgatttatg accttttcag gaagcacaag accatctctt ttgggggctg tgtagttcag 300
 atcttcttta tccatgcagt tgggggaact gagatggtgc tgctcatagc catggctttt 360
 gaccgatatg tggccatagc taagcctctc cactacctga ccatcatgaa cccacaaagg 420
 tgcattttgt ttttagtcat ttcttggtat ataggtatta ttactcagt gattcagttg 480
 gcttttggtg tagacctgct gttctgtggc cctaataaat tagatagttt cttttgtgat 540
 cttctcgcag ttatcaaact ggcttgcata gagacctaca cattgggatt catggttact 600
 gccaatagtg gatttatttc tctggcttct tttttaattc tcataatctc ttacatcttt 660

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atTTTggtga ctgttcagaa aaaatcttca ggtgggtatat tcaaggcttt ctctatgctg 720
tcagctcatg tcattgtggt ggTTTTggtc tttgggccat taatcttttt ctatatTTTt 780
ccatttccca catcacatct tgataaatc cttgccatct ttgatgcagt taccactccc 840
gttttgaatc cagtcactta tacttttaga aataaaagaga tgatgggtggc aatgagaaga 900
cgatgctctc agtttgtgaa ttacagtaaa atcttttta 939

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<210> 215

<211> 357

<212> PRT

<213> Homo sapiens

<400> 215

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Met Asn Asn Thr Ile Val Phe Val Ile Lys Ile Gln Ile Glu Lys Ser
  1             5             10             15

Asp Leu Lys Tyr Arg Ala Ile Ser Leu Gln Glu Ile Ser Lys Ile Ser
      20             25             30

Leu Leu Phe Trp Val Leu Leu Leu Val Ile Ser Arg Leu Leu Leu Ala
      35             40             45

Met Thr Leu Gly Asn Ser Thr Glu Val Thr Glu Phe Tyr Leu Leu Gly
      50             55             60

Phe Gly Ala Gln His Glu Phe Trp Cys Ile Leu Phe Ile Val Phe Leu
      65             70             75             80

Leu Ile Tyr Val Thr Ser Ile Met Gly Asn Ser Gly Ile Ile Leu Leu
      85             90             95

Ile Asn Thr Asp Ser Arg Phe Gln Thr Leu Thr Tyr Phe Phe Leu Gln
      100            105            110

His Leu Ala Phe Val Asp Ile Cys Tyr Thr Ser Ala Ile Thr Pro Lys
      115            120            125

Met Leu Gln Ser Phe Thr Glu Glu Lys Asn Leu Ile Leu Phe Gln Gly
      130            135            140

Cys Val Ile Gln Phe Leu Val Tyr Ala Thr Phe Ala Thr Ser Asp Cys
      145            150            155            160

Tyr Leu Leu Ala Met Met Ala Val Asp Pro Tyr Val Ala Ile Cys Lys
      165            170            175

Pro Leu His Tyr Thr Val Ile Met Ser Arg Thr Val Cys Ile Arg Leu
      180            185            190

Val Ala Gly Ser Tyr Ile Met Gly Ser Ile Asn Ala Ser Val Gln Thr
      195            200            205

Gly Phe Thr Cys Ser Leu Ser Phe Cys Lys Ser Asn Ser Ile Asn His
      210            215            220

Phe Phe Cys Asp Val Pro Pro Ile Leu Ala Leu Ser Cys Ser Asn Val
      225            230            235            240

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Asp Ile Asn Ile Met Leu Leu Val Val Phe Val Gly Ser Asn Leu Ile
 245 250 255
 Phe Thr Gly Leu Val Val Ile Phe Ser Tyr Ile Tyr Ile Met Ala Thr
 260 265 270
 Ile Leu Lys Met Ser Ser Ser Ala Gly Arg Lys Lys Ser Phe Ser Thr
 275 280 285
 Cys Ala Ser His Leu Thr Ala Val Thr Ile Phe Tyr Gly Thr Leu Ser
 290 295 300
 Tyr Met Tyr Leu Gln Ser His Ser Asn Asn Ser Gln Glu Asn Met Lys
 305 310 315 320
 Val Ala Phe Ile Phe Tyr Gly Thr Val Ile Pro Met Leu Asn Pro Leu
 325 330 335
 Ile Tyr Ser Leu Arg Asn Lys Glu Val Lys Glu Ala Leu Lys Val Ile
 340 345 350
 Gly Lys Lys Leu Phe
 355

<210> 216
 <211> 1074
 <212> DNA
 <213> Homo sapiens

<400> 216
 atgaataaca ctattgtatt tgtcataaaa atacaaatag aaaaaagtga cttgaaatat 60
 agagccattt cattgcaaga aatctcaaag atttcccttc ttttctgggt ctttctcttg 120
 gtcattttcta gacttttact agccatgaca ctaggaaaca gcactgaagt cactgaattc 180
 tatcttctgg gatttgggtgc ccagcatgag ttttgggtgta tcctcttcat tgtattcctt 240
 ctcacttatg tgacctccat aatgggtaat agtggaaata tcttactcat caacacagat 300
 tccagatttc aaacactcac gtactttttt ctacaacatt tggcttttgt tgatatctgt 360
 tacactttctg ctatcactcc caagatgctc caaagcttca cagaagaaaa gaatttgata 420
 ttatttcagg gctgtgtgat acaattctta gtttatgcaa catttgcaac cagtgactgt 480
 tatctcctgg ctatgatggc agtggatcct tatgttgcca tctgtaagcc ccttcaactat 540
 actgtaatca tgtcccgaac agtctgcac cgtttggttag ctgggtcata catcatgggc 600
 tcaataaatg cctctgtaca aacaggtttt acatgttcac tgccttctg caagtccaat 660
 agcatcaatc actttttctg tgatgttccc cctattcttg ctctttcatg ctccaatgtt 720
 gacatcaaca tcatgctact tgttgtcttt gtgggatcta acttgatatt cactgggttg 780
 gtggtcatct tttcctacat ctacatcatg gccaccatcc tgaaaatgtc ttctagtgca 840
 ggaaggaaaa aatccttctc aacatgtgct tcccacctga ccgcagtcac cattttctat 900
 gggacactct cttacatgta tttgcagtct cattctaata attcccagga aaatatgaaa 960
 gtggccttta tattttatgg cacagttatt cccatgttaa atcctttaat ctatagcttg 1020
 agaaataagg aagtaaaaaga agctttaaaa gtgataggga aaaagttatt ttaa 1074

<210> 217
 <211> 324
 <212> PRT
 <213> Homo sapiens

<400> 217

Met	Asn	His	Met	Ser	Ala	Ser	Leu	Lys	Ile	Ser	Asn	Ser	Ser	Lys	Phe
1				5					10					15	
Gln	Val	Ser	Glu	Phe	Ile	Leu	Leu	Gly	Phe	Pro	Gly	Ile	His	Ser	Trp
			20					25					30		
Gln	His	Trp	Leu	Ser	Leu	Pro	Leu	Ala	Leu	Leu	Tyr	Leu	Ser	Ala	Leu
		35					40					45			
Ala	Ala	Asn	Thr	Leu	Ile	Leu	Ile	Ile	Ile	Trp	Gln	Asn	Pro	Ser	Leu
	50					55					60				
Gln	Gln	Pro	Met	Tyr	Ile	Phe	Leu	Gly	Ile	Leu	Cys	Met	Val	Asp	Met
65					70					75					80
Gly	Leu	Ala	Thr	Thr	Ile	Ile	Pro	Lys	Ile	Leu	Ala	Ile	Phe	Trp	Phe
				85					90					95	
Asp	Ala	Lys	Val	Ile	Ser	Leu	Pro	Glu	Cys	Phe	Ala	Gln	Ile	Tyr	Ala
			100					105					110		
Ile	His	Phe	Phe	Val	Gly	Met	Glu	Ser	Gly	Ile	Leu	Leu	Cys	Met	Ala
		115					120					125			
Phe	Asp	Arg	Tyr	Val	Ala	Ile	Cys	His	Pro	Leu	Arg	Tyr	Pro	Ser	Ile
	130					135					140				
Val	Thr	Ser	Ser	Leu	Ile	Leu	Lys	Ala	Thr	Leu	Phe	Met	Val	Leu	Arg
145					150					155					160
Asn	Gly	Leu	Phe	Val	Thr	Pro	Val	Pro	Val	Leu	Ala	Ala	Gln	Arg	Asp
				165					170					175	
Tyr	Cys	Ser	Lys	Asn	Glu	Ile	Glu	His	Cys	Leu	Cys	Ser	Asn	Leu	Gly
			180					185					190		
Val	Thr	Ser	Leu	Ala	Cys	Asp	Asp	Arg	Arg	Pro	Asn	Ser	Ile	Cys	Gln
		195					200					205			
Leu	Val	Leu	Ala	Trp	Leu	Gly	Met	Gly	Ser	Asp	Leu	Ser	Leu	Ile	Ile
	210					215					220				
Leu	Ser	Tyr	Ile	Leu	Ile	Leu	Tyr	Ser	Val	Leu	Arg	Leu	Asn	Ser	Ala
225					230					235					240
Glu	Ala	Ala	Ala	Lys	Ala	Leu	Ser	Thr	Cys	Ser	Ser	His	Leu	Thr	Leu
				245					250					255	
Ile	Leu	Phe	Phe	Tyr	Thr	Ile	Val	Val	Val	Ile	Ser	Val	Thr	His	Leu
			260					265					270		
Thr	Glu	Met	Lys	Ala	Thr	Leu	Ile	Pro	Val	Leu	Leu	Asn	Val	Leu	His
		275					280					285			
Asn	Ile	Ile	Pro	Pro	Ser	Leu	Asn	Pro	Thr	Val	Tyr	Ala	Leu	Gln	Thr
	290					295					300				

Lys Glu Leu Arg Ala Ala Phe Gln Lys Val Leu Phe Ala Leu Thr Lys
 305 310 315 320

Glu Ile Arg Ser

<210> 218
 <211> 975
 <212> DNA
 <213> Homo sapiens

<400> 218
 atgaatcata tgtctgcatc tctcaaaatc tccaatagct ccaaattcca ggtctctgag 60
 ttcacacctgc tgggattccc gggcattcac agctggcaac actggctatc tctgcccctg 120
 gcactactgt atctctcagc acttgctgca aacaccctca tcctcatcat catctggcag 180
 aacccttctt tacagcagcc catgtatatt ttccttggca tcctctgtat ggtagacatg 240
 ggtctggcca ctactatcat ccctaagatc ctggccatct tctgggttga tgccaagggt 300
 attagcctcc ctgagtgctt tgctcagatt tatgccattc acttctttgt gggcatggag 360
 tctggtatcc tactctgcat ggcttttgat agatatgtgg ctatttgtca ccctcttcgc 420
 tatccatcaa ttgtcaccag ttccttaatc ttaaaagcta ccctgttcat ggtgctgaga 480
 aatggcttat ttgtcactcc agtgccctgtg cttgcagcac agcgtgatta ttgctccaag 540
 aatgaaattg aacactgcct gtgctctaac cttgggggtca caagcctggc ttgtgatgac 600
 aggaggccaa acagcatttg ccagttgggt ctggcatggc ttggaatggg gagtgatcta 660
 agtcttatta tactgtcata tattttgatt ctgtactctg tacttagact gaactcagct 720
 gaagctgcag ccaaggccct gagcacttgt agttcacatc tcaccctcat ccttttcttt 780
 tacactattg ttgtagtgat ttcagtgact catctgacag agatgaaggc tactttgatt 840
 ccagttctac ttaatgtgtt gcacaacatc atccccctt ccctcaacc tacagtttat 900
 gcacttcaga ccaagaact tagggcagcc ttccaaaagg tgctgtttgc ccttacaaaa 960
 gaaataagat cttag 975

<210> 219
 <211> 324
 <212> PRT
 <213> Homo sapiens

<400> 219
 Met Pro Leu Phe Asn Ser Leu Cys Trp Phe Pro Thr Ile His Val Thr
 1 5 10 15
 Pro Pro Ser Phe Ile Leu Asn Gly Ile Pro Gly Leu Glu Arg Val His
 20 25 30
 Val Trp Ile Ser Leu Pro Leu Cys Thr Met Tyr Ile Ile Phe Leu Val
 35 40 45
 Gly Asn Leu Gly Leu Val Tyr Leu Ile Tyr Tyr Glu Glu Ser Leu His
 50 55 60
 His Pro Met Tyr Phe Phe Phe Gly His Ala Leu Ser Leu Ile Asp Leu
 65 70 75 80
 Leu Thr Cys Thr Thr Thr Leu Pro Asn Ala Leu Cys Ile Phe Trp Phe
 85 90 95

Ser Leu Lys Glu Ile Asn Phe Asn Ala Cys Leu Ala Gln Met Phe Phe
 100 105 110
 Val His Gly Phe Thr Gly Val Glu Ser Gly Val Leu Met Leu Met Ala
 115 120 125
 Leu Asp Arg Tyr Ile Ala Ile Cys Tyr Pro Leu Arg Tyr Ala Thr Thr
 130 135 140
 Leu Thr Asn Pro Ile Ile Ala Lys Ala Glu Leu Ala Thr Phe Leu Arg
 145 150 155 160
 Gly Val Leu Leu Met Ile Pro Phe Pro Phe Leu Val Lys Arg Leu Pro
 165 170 175
 Phe Cys Gln Ser Asn Ile Ile Ser His Thr Tyr Cys Asp His Met Ser
 180 185 190
 Val Val Lys Leu Ser Cys Ala Ser Ile Lys Val Asn Val Ile Tyr Gly
 195 200 205
 Leu Met Val Ala Leu Leu Ile Gly Val Phe Asp Ile Cys Cys Ile Ser
 210 215 220
 Leu Ser Tyr Thr Leu Ile Leu Lys Ala Ala Ile Ser Leu Ser Ser Ser
 225 230 235 240
 Asp Ala Arg Gln Lys Ala Phe Ser Thr Cys Thr Ala His Ile Ser Ala
 245 250 255
 Ile Ile Ile Thr Tyr Val Pro Ala Phe Phe Thr Phe Phe Ala His Arg
 260 265 270
 Phe Gly Gly His Thr Ile Pro Pro Ser Leu His Ile Ile Val Ala Asn
 275 280 285
 Leu Tyr Leu Leu Leu Pro Pro Thr Leu Asn Pro Ile Val Tyr Gly Val
 290 295 300
 Lys Thr Lys Gln Ile Arg Lys Ser Val Ile Lys Phe Phe Gln Gly Asp
 305 310 315 320
 Lys Gly Ala Gly

<210> 220
 <211> 975
 <212> DNA
 <213> Homo sapiens

<400> 220
 atgcctctat ttaattcatt atgctgggtt ccaacaattc atgtgactcc tccatctttt 60
 attcttaatg gaatacctgg tctggaaaga gtacatgtat ggatctccct cccactctgc 120
 acaatgtaca tcatcttcct tgtggggaat cttggtcttg tgtacctcat ttattatgag 180
 gagtccttac atcatccgat gtattttttt tttggccatg ctctctccct cattgacctc 240
 cttacctgca ccaccactct acccaatgca ctctgcactc tctggttcag tctcaaagaa 300

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attaacttca atgcttgctt ggcccagatg ttctttgttc atgggttcac aggtgtggag 360
tctgggggtgc tcatgctcat ggctctagac cgctatatag ccatttgcta ccctttgcgt 420
tatgctacca cactcaccaa ccctatcatt gccaaggctg agcttgccac ctccctgagg 480
gggtgtattgc tgatgattcc ttcccatc ttgggttaagc gtttgccctt ctgccaaagc 540
aatattatct cccatacgta ctgcgaccac atgtctgtag taaagctatc ttgtgccagc 600
atcaagggtca atgtaatcta tgggtctaagc gttgctctcc tgattggagt gtttgacatt 660
tgttgtatat ctttgtctta cactttgatc ctcaaggcag cgatcagcct ctcttcacat 720
gatgctcggc agaaggcttt cagcacctgc actgcccata tatctgccat catcatcacc 780
tatgttccag cattcttcac ttcttttgcc caccgttttg ggggacacac aattccccct 840
tctcttcaca tcattgtggc taatctttat cttctcttc ccccaactct aaaccctatt 900
gtttatggag taaagacaaa acagatacgc aagagtgtca taaagtctt ccagggtgat 960
aagggtgcag gttga 975

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<210> 221
 <211> 317
 <212> PRT
 <213> Homo sapiens

<400> 221

Met	Gln	Pro	Tyr	Thr	Lys	Asn	Trp	Thr	Gln	Val	Thr	Glu	Phe	Val	Met
1				5				10					15		
Met	Gly	Phe	Ala	Gly	Ile	His	Glu	Ala	His	Leu	Leu	Phe	Phe	Ile	Leu
			20					25					30		
Phe	Leu	Thr	Met	Tyr	Leu	Phe	Thr	Leu	Val	Glu	Asn	Leu	Ala	Ile	Ile
		35					40					45			
Leu	Val	Val	Gly	Leu	Asp	His	Arg	Leu	Arg	Arg	Pro	Met	Tyr	Phe	Phe
	50					55					60				
Leu	Thr	His	Leu	Ser	Cys	Leu	Glu	Ile	Trp	Tyr	Thr	Ser	Val	Thr	Val
	65				70				75						80
Pro	Lys	Met	Leu	Ala	Gly	Phe	Ile	Gly	Val	Asp	Gly	Gly	Lys	Asn	Ile
			85					90						95	
Ser	Tyr	Ala	Gly	Cys	Leu	Ser	Gln	Leu	Phe	Ile	Phe	Thr	Phe	Leu	Gly
		100					105						110		
Ala	Thr	Glu	Cys	Phe	Leu	Leu	Ala	Ala	Met	Ala	Tyr	Asp	Arg	Tyr	Val
	115						120					125			
Ala	Ile	Cys	Met	Pro	Leu	His	Tyr	Gly	Ala	Phe	Val	Ser	Trp	Gly	Thr
	130					135					140				
Cys	Ile	Arg	Leu	Ala	Ala	Ala	Cys	Trp	Leu	Val	Gly	Phe	Leu	Thr	Pro
145				150					155						160
Ile	Leu	Pro	Ile	Tyr	Leu	Leu	Ser	Gln	Leu	Thr	Phe	Cys	Gly	Pro	Asn
			165					170					175		
Val	Ile	Asp	His	Phe	Ser	Cys	Asp	Ala	Ser	Pro	Leu	Leu	Ala	Leu	Ser
		180					185						190		
Cys	Ser	Asp	Val	Thr	Trp	Lys	Glu	Thr	Val	Asp	Phe	Leu	Val	Ser	Leu

195	200	205
Ala Val Leu Leu Ala Ser Ser Met Val Ile Ala Val Ser Tyr Gly Asn		
210	215	220
Ile Val Trp Thr Leu Leu His Ile Arg Ser Ala Ala Glu Arg Trp Lys		
225	230	235 240
Ala Phe Ser Thr Cys Ala Ala His Leu Thr Val Val Ser Leu Phe Tyr		
245	250	255
Gly Thr Leu Phe Phe Met Tyr Val Gln Thr Lys Val Thr Ser Ser Ile		
260	265	270
Asn Phe Asn Lys Val Val Ser Val Phe Tyr Ser Val Val Thr Pro Met		
275	280	285
Leu Asn Pro Leu Ile Tyr Ser Leu Arg Asn Lys Glu Val Lys Gly Ala		
290	295	300
Leu Gly Arg Val Phe Ser Leu Asn Phe Trp Lys Gly Gln		
305	310	315

<210> 222
 <211> 954
 <212> DNA
 <213> Homo sapiens

<400> 222
 atgcaaccat ataccaaaaa ctggacccag gtaactgaat ttgtcatgat gggctttgct 60
 ggcattccatg aagcacacct cctctttcttc atactcttcc tcaccatgta cctgttcacc 120
 ttgggtggaga atttggccat catttttagtg gtgggtttgg accaccgact acggagaccc 180
 atgtattttct tcctgacaca cttgtcctgc cttgaaatct ggtacacttc tgttacagtg 240
 cccaagatgc tggctgggtt tattgggggtg gatgggtggca agaatacttc ttatgctggg 300
 tgcctatccc agctcttcat cttcaccttt cttgggggcaa ctgagtgttt cctactgggt 360
 gccatggcct atgatcgtaa tgtggccatt tgtatgcctc tccactatgg ggctttttgtg 420
 tcctgggggca cctgcatcgg tctggcagct gcctgttggc tggtaggttt cctcacaccc 480
 atcttgccaa tctacctctt gtctcagcta acattttgtg gccaaatgt cattgacct 540
 ttctcctgtg atgcctcacc cttgctagcc ttgtcgtgct cagatgtcac ttggaaggag 600
 actgtggatt tcctgggtgc tctggctgtg ctactggcct cctctatggg cattgctgtg 660
 tcctatggca acatcgtctg gacactgctg cacatccgct cagctgctga gcgctggaag 720
 gccttctcta cctgtgcagc tcacctgact gtgggtgagcc tcttctatgg cactcttttc 780
 tttatgtatg tccagaccaa ggtgacctcc tccatcaact tcaacaagggt ggtatctgtc 840
 ttctactctg ttgtcacgcc catgctcaat cctctcatct acagtcttag gaacaaggaa 900
 gtgaagggag ctctgggtcg agtcttttct ctcaactttt ggaagggaca gtga 954

<210> 223
 <211> 309
 <212> PRT
 <213> Homo sapiens

<400> 223
 Met Lys Arg Lys Asn Phe Thr Glu Val Ser Glu Phe Ile Phe Leu Gly
 1 5 10 15

Phe Ser Ser Phe Gly Lys His Gln Ile Thr Leu Phe Val Val Phe Leu
20 25 30
Thr Val Tyr Ile Leu Thr Leu Val Ala Asn Ile Ile Ile Val Thr Ile
35 40 45
Ile Cys Ile Asp His His Leu His Thr Pro Met Tyr Phe Phe Leu Ser
50 55 60
Met Leu Ala Ser Ser Glu Thr Val Tyr Thr Leu Val Ile Val Pro Arg
65 70 75 80
Met Leu Leu Ser Leu Ile Phe His Asn Gln Pro Ile Ser Leu Ala Gly
85 90 95
Cys Ala Thr Gln Met Phe Phe Phe Val Ile Leu Ala Thr Asn Asn Cys
100 105 110
Phe Leu Leu Thr Ala Met Gly Tyr Asp Arg Tyr Val Ala Ile Cys Arg
115 120 125
Pro Leu Arg Tyr Thr Val Ile Met Ser Lys Gly Leu Cys Ala Gln Leu
130 135 140
Val Cys Gly Ser Phe Gly Ile Gly Leu Thr Met Ala Val Leu His Val
145 150 155 160
Thr Ala Met Phe Asn Leu Pro Phe Cys Gly Thr Val Val Asp His Phe
165 170 175
Phe Cys Asp Ile Tyr Pro Val Met Lys Leu Ser Cys Ile Asp Thr Thr
180 185 190
Ile Asn Glu Ile Ile Asn Tyr Gly Val Ser Ser Phe Val Ile Phe Val
195 200 205
Pro Ile Gly Leu Ile Phe Ile Ser Tyr Val Leu Val Ile Ser Ser Ile
210 215 220
Leu Gln Ile Ala Ser Ala Glu Gly Arg Lys Lys Thr Phe Ala Thr Cys
225 230 235 240
Val Ser His Leu Thr Val Val Ile Val His Cys Gly Cys Ala Ser Ile
245 250 255
Ala Tyr Leu Lys Pro Lys Ser Glu Ser Ser Ile Glu Lys Asp Leu Val
260 265 270
Leu Ser Val Thr Tyr Thr Ile Ile Thr Pro Leu Leu Asn Pro Val Val
275 280 285
Tyr Ser Leu Arg Asn Lys Glu Val Lys Asp Ala Leu Cys Arg Val Val
290 295 300
Gly Arg Asn Ile Ser
305

<210> 224
 <211> 930
 <212> DNA
 <213> Homo sapiens

<400> 224
 atgaagagaa agaacttcac agaagtgtca gaattcattt tcttgggatt ttctagcttt 60
 ggaaagcatc agataaccct ctttgtgggt ttcctaactg tctacatttt aactctgggt 120
 gctaacaatca tcattgtgac tatcatctgc attgaccatc atctccacac tcccatgtat 180
 ttcttcctaa gcatgctggc tagttcagag acggtgtaca cactgggtcat tgtgccacga 240
 atgcttttga gcctcatttt tcataaccaa cctatctcct tggcaggctg tgctacacaa 300
 atgttctttt ttgttatctt ggccactaat aattgcttcc tgcttactgc aatgggggtat 360
 gaccgctatg tggccatctg cagaccctcg agatacactg tcatcatgag caaggggacta 420
 tgtgcccagc tgggtgtgtg gtcctttggc attggtctga ctatggcagt tctccatgtg 480
 acagccatgt tcaatttgcc gttctgtggc acagtggtag accacttctt ttgtgacatt 540
 taccagtcga tgaaactttc ttgcattgat accactatca atgagataat aaattatggg 600
 gtaagttcat ttgtgatttt tgtgcccata ggccctgatat ttatctccta tgtccttgtc 660
 atctcttcca tccttcaaat tgccctcagc gagggccgga agaagacctt tgccacctgt 720
 gtctcccacc tcaactgtgtg tattgtccac tgtggctgtg cctccattgc ctacctcaag 780
 ccgaagtcag aaagttcaat agaaaaagac cttgttctct cagtgcgta caccatcatc 840
 actcccttgc tgaacctgtg tgtttacagt ctgagaaaca aggaggtaaa ggatgcccta 900
 tgcagagttg tgggcagaaa tattttcttaa 930

<210> 225
 <211> 318
 <212> PRT
 <213> Homo sapiens

<400> 225
 Met Glu Trp Glu Asn Gln Thr Ile Leu Val Glu Phe Phe Leu Lys Gly
 1 5 10 15
 His Ser Val His Pro Arg Leu Glu Leu Leu Phe Phe Val Leu Ile Phe
 20 25 30
 Ile Met Tyr Val Val Ile Leu Leu Gly Asn Gly Thr Leu Ile Leu Ile
 35 40 45
 Ser Ile Leu Asp Pro His Leu His Thr Pro Met Tyr Phe Phe Leu Gly
 50 55 60
 Asn Leu Ser Phe Leu Asp Ile Cys Tyr Thr Thr Thr Ser Ile Pro Ser
 65 70 75 80
 Thr Leu Val Ser Phe Leu Ser Glu Arg Lys Thr Ile Ser Phe Ser Gly
 85 90 95
 Cys Ala Val Gln Met Phe Leu Gly Leu Ala Met Gly Thr Thr Glu Cys
 100 105 110
 Val Leu Leu Gly Met Met Ala Phe Asp Arg Tyr Val Ala Ile Cys Asn
 115 120 125
 Pro Leu Arg Tyr Pro Ile Ile Met Ser Lys Asn Ala Tyr Val Pro Met
 130 135 140

Ala Val Gly Ser Trp	Phe Ala Gly Ile Val Asn Ser Ala Val Gln Thr	
145	150	155 160
Thr Phe Val Val Gln Leu Pro Phe Cys Arg Lys Asn Val Ile Asn His		
	165	170 175
Phe Ser Cys Glu Ile Leu Ala Val Met Lys Leu Ala Cys Ala Asp Ile		
	180	185 190
Ser Gly Asn Glu Phe Leu Met Leu Val Ala Thr Ile Leu Phe Thr Leu		
	195	200 205
Met Pro Leu Leu Leu Ile Val Ile Ser Tyr Ser Leu Ile Ile Ser Ser		
	210	215 220
Ile Leu Lys Ile His Ser Ser Glu Gly Arg Ser Lys Ala Phe Ser Thr		
	225	230 235 240
Cys Ser Ala His Leu Thr Val Val Ile Ile Phe Tyr Gly Thr Ile Leu		
	245	250 255
Phe Met Tyr Met Lys Pro Lys Ser Lys Glu Thr Leu Asn Ser Asp Asp		
	260	265 270
Leu Asp Ala Thr Asp Lys Ile Ile Ser Met Phe Tyr Gly Val Met Thr		
	275	280 285
Pro Met Met Asn Pro Leu Ile Tyr Ser Leu Arg Asn Lys Asp Val Lys		
	290	295 300
Glu Ala Val Lys His Leu Pro Asn Arg Arg Phe Phe Ser Lys		
	305	310 315

<210> 226
 <211> 957
 <212> DNA
 <213> Homo sapiens

<400> 226
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 ccaaggcttg agttactctt ttttgtgcta atcttcataa tgtatgtggt catccttctg 120
 gggaatggta ctctcatttt aatcagcatc ttggaccctc accttcacac ccctatgtac 180
 ttctttcttg ggaacctctc cttcttggtg atctgtctaca ccaccacctc tattccctcc 240
 acactagtga gcttcctttc agaaagaaag accatttcct tttctggctg tgcagtgcag 300
 atgttccttg gcttgcccat ggggacaaca gagtgtgtgc ttctgggcat gatggccttt 360
 gaccgctatg tggctatctg caaccctctg agatatccca tcatcatgag caagaatgcc 420
 tatgtaccca tggctgttgg gtccctggtt gcaggggattg tcaactctgc agtacaaact 480
 acattttagt tacaattgcc tttctgcagg aagaatgtca tcaatcattt ctcatgtgaa 540
 attctagctg tcatgaagtt ggcctgtgct gacatctcag gcaatgagtt cctcatgctt 600
 gtggccacaa tattgttcac attgatgcca ctgctcttga tagttatctc ttactcatta 660
 atcatttcca gcatcctcaa gattcactcc tctgagggga gaagcaaagc tttctctacc 720
 tgctcagccc atctgactgt ggtcataata ttctatggga ccactcctct catgtatatg 780
 aagcccaagt cttaaagagac acttaattca gatgacttgg atgctaccga caaaattata 840
 tccatgttct atggggtgat gactcccatg atgaatcctt taatctacag tcttagaaac 900
 aaggatgtga aagaggcagt aaaacaccta ccgaacagaa gggtcttttag caagtga 957

<210> 227
 <211> 346
 <212> PRT
 <213> Homo sapiens

<400> 227
 Met Tyr Arg Phe Thr Asp Phe Asp Val Ser Asn Ile Ser Ile Tyr Leu
 1 5 10 15
 Asn His Val Leu Phe Tyr Thr Thr Gln Gln Ala Gly Asp Leu Glu His
 20 25 30
 Met Glu Thr Arg Asn Tyr Ser Ala Met Thr Glu Phe Phe Leu Val Gly
 35 40 45
 Leu Ser Gln Tyr Pro Glu Leu Gln Leu Phe Leu Phe Leu Leu Cys Leu
 50 55 60
 Ile Met Tyr Met Ile Ile Leu Leu Gly Asn Ser Leu Leu Ile Ile Ile
 65 70 75 80
 Thr Ile Leu Asp Ser Arg Leu His Thr Pro Met Tyr Phe Phe Leu Gly
 85 90 95
 Asn Leu Ser Phe Leu Asp Ile Cys Tyr Thr Ser Ser Ser Ile Pro Pro
 100 105 110
 Met Leu Ile Ile Phe Met Ser Glu Arg Lys Ser Ile Ser Phe Ile Gly
 115 120 125
 Cys Ala Leu Gln Met Val Val Ser Leu Gly Leu Gly Ser Thr Glu Cys
 130 135 140
 Val Leu Leu Ala Val Met Ala Tyr Asp His Tyr Val Ala Ile Cys Asn
 145 150 155 160
 Pro Leu Arg Tyr Ser Ile Ile Met Asn Gly Val Leu Tyr Val Gln Met
 165 170 175
 Ala Ala Trp Ser Trp Ile Ile Gly Cys Leu Thr Ser Leu Leu Gln Thr
 180 185 190
 Val Leu Thr Met Met Leu Pro Phe Cys Gly Asn Asn Val Ile Asp His
 195 200 205
 Ile Thr Cys Glu Ile Leu Ala Leu Leu Lys Leu Val Cys Ser Asp Ile
 210 215 220
 Thr Ile Asn Val Leu Ile Met Thr Val Thr Asn Ile Val Ser Leu Val
 225 230 235 240
 Ile Leu Leu Leu Leu Ile Phe Ile Ser Tyr Val Phe Ile Leu Ser Ser
 245 250 255
 Ile Leu Arg Ile Asn Cys Ala Glu Gly Arg Lys Lys Ala Phe Ser Thr

260 265 270
 Cys Ser Ala His Ser Ile Val Val Ile Leu Phe Tyr Gly Ser Ala Leu
 275 280 285
 Phe Met Tyr Met Lys Pro Lys Ser Lys Asn Thr Asn Thr Ser Asp Glu
 290 295 300
 Ile Ile Gly Leu Ser Tyr Gly Val Val Ser Pro Met Leu Asn Pro Ile
 305 310 315 320
 Ile Tyr Ser Leu Arg Asn Lys Glu Val Lys Glu Ala Val Lys Lys Val
 325 330 335
 Leu Ser Arg His Leu His Leu Leu Lys Met
 340 345

<210> 228
 <211> 1041
 <212> DNA
 <213> Homo sapiens

<400> 228
 atgtacagat ttacagat t gatgtatca aacatttcaa tttacctgaa tcatgtcctt 60
 ttctatacta cccagcaggc aggtgaccta gaacacatgg agacaagaaa ttactctgcc 120
 atgactgaat tctttctggg ggggctttcc caatatccag agctccagct ttttctgttc 180
 ctgctctgcc tcatcatgta catgataatc ctccctgggaa atagcctcct cattatcatc 240
 accatcttgg attctcgcct ccatactccc atgtatttct ttcttgga aa cctctcattc 300
 ttggacatct gttacacatc ctcattccatt cctccaatgc ttattatatt tatgtctgag 360
 agaaaaatcca tctccttcat tggctgtgct ctgcagatgg ttgtgtccct tggcttgggc 420
 tccactgagt gtgtcctcct ggctgtgatg gcctatgacc actatgtggc catctgcaac 480
 ccactgaggt actccatcat catgaacgga gtgctgtatg tgcaa atggc tgcattgggtcc 540
 tggatcatag gctgtctgac ctccctattg caaacagttc tgacaatgat gttgcctttc 600
 tgtgggaata atgtcattga tcatattacc tgtgaaattt tggcccttct aaaacttgtt 660
 tgttcagata tcaccatcaa tgtgcttatt atgacagtga caaatattgt ttcactgggtg 720
 attcttctac tgtaattttt catctcctat gtgtttattc tctcttccat cctgagaatt 780
 aattgtgctg agggaagaaa gaaagccttc tctacctgtt cagcgactc gattgtggtc 840
 atcttattct acggttcagc cctttttatg tacatgaaac ccaagtcaaa gaacactaat 900
 acatctgatg agattattgg gctgtcttat ggagtggtaa gcccaatgtt aaatcccatc 960
 atctatagcc tcaggaataa agaggtcaaa gaggtgttaa agaaagtcct gagcagacat 1020
 ctgcatttat tgaaaatgtg a 1041

<210> 229
 <211> 307
 <212> PRT
 <213> Homo sapiens

<400> 229
 Met Asn His Ser Val Val Thr Glu Phe Ile Ile Leu Gly Leu Thr Lys
 1 5 10 15
 Lys Pro Glu Leu Gln Gly Ile Ile Phe Leu Phe Phe Leu Ile Val Tyr
 20 25 30
 Leu Val Ala Phe Leu Gly Asn Met Leu Ile Ile Ile Ala Lys Ile Tyr

35					40					45					
Asn	Asn	Thr	Leu	His	Thr	Pro	Met	Tyr	Val	Phe	Leu	Leu	Thr	Leu	Ala
50						55					60				
Val	Val	Asp	Ile	Ile	Cys	Thr	Thr	Ser	Ile	Ile	Pro	Lys	Met	Leu	Gly
65					70					75					80
Thr	Met	Leu	Thr	Ser	Glu	Asn	Thr	Ile	Ser	Tyr	Ala	Gly	Cys	Met	Ser
				85					90					95	
Gln	Leu	Phe	Leu	Phe	Thr	Trp	Ser	Leu	Gly	Ala	Glu	Met	Val	Leu	Phe
			100					105					110		
Thr	Thr	Met	Ala	Tyr	Asp	Arg	Tyr	Val	Ala	Ile	Cys	Phe	Pro	Leu	His
		115					120					125			
Tyr	Ser	Thr	Val	Met	Asn	His	His	Met	Cys	Val	Ala	Leu	Leu	Ser	Met
	130					135					140				
Val	Met	Ala	Ile	Ala	Val	Thr	Asn	Ser	Trp	Val	His	Thr	Ala	Leu	Ile
145					150					155					160
Met	Arg	Leu	Thr	Phe	Cys	Gly	Pro	Asn	Thr	Ile	Asp	His	Phe	Phe	Cys
				165					170					175	
Glu	Ile	Pro	Pro	Leu	Leu	Ala	Leu	Ser	Cys	Ser	Pro	Val	Arg	Ile	Asn
			180					185					190		
Glu	Val	Met	Val	Tyr	Val	Ala	Asp	Ile	Thr	Leu	Ala	Ile	Gly	Asp	Phe
		195					200					205			
Ile	Leu	Thr	Cys	Ile	Ser	Tyr	Gly	Phe	Ile	Ile	Val	Ala	Ile	Leu	Arg
	210					215					220				
Ile	Arg	Thr	Val	Glu	Gly	Lys	Arg	Lys	Ala	Phe	Ser	Thr	Cys	Ser	Ser
225					230					235					240
His	Leu	Thr	Val	Val	Thr	Leu	Tyr	Tyr	Ser	Pro	Val	Ile	Tyr	Thr	Tyr
				245					250					255	
Ile	Arg	Pro	Ala	Ser	Ser	Tyr	Thr	Phe	Glu	Arg	Asp	Lys	Val	Val	Ala
			260					265					270		
Ala	Leu	Tyr	Thr	Leu	Val	Thr	Pro	Thr	Leu	Asn	Pro	Met	Val	Tyr	Ser
		275					280					285			
Phe	Gln	Asn	Arg	Glu	Met	Gln	Ala	Gly	Ile	Arg	Lys	Val	Phe	Ala	Phe
	290					295					300				
Leu	Lys	His													
305															

<210> 230
 <211> 924
 <212> DNA

<213> Homo sapiens

<400> 230

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atgaatcaca gcgttgtaac tgagttcatt attctgggcc tcaccaaaaa gcctgaactc 60
caggggaatta tcttcctctt tttcttcatt gtctatcttg tggcttttct cggcaacatg 120
ctcatcatca ttgccaaaat ctataacaac accttgcata cgcccatgta tgttttcctt 180
ctgacactgg ctggttggtga catcatctgc acaacaagca tcataccgaa gatgctgggg 240
accatgctaa catcagaaaa taccatttca tatgcaggct gcatgtccca gctcttcttg 300
ttcacatggt ctctgggagc tgagatgggt ctcttcacca ccatggccta tgaccgctat 360
gtggccattt gtttccctct tcattacagt actggtatga accaccatat gtgtgtagcc 420
ttgctcagca tggtcatggc tattgcagtc accaattcct gggcgcacac agctcttatc 480
atgaggttga ctttctgtgg gccaaacacc attgaccact tcttctgtga gataccccc 540
ttgctggctt tgtcctgtag ccctgtaaga atcaatgagg tgatgggtga tgttgctgat 600
attaccctgg ccatagggga ctttattctt acctgcatct cctatgggtt tatcattgtt 660
gctattctcc gtatccgcac agtagaaggc aagaggaagg cttctcaac atgctcatct 720
catctcacag tggcgaccct ttactattct cctgtaatct acacctatat ccgccctgct 780
tccagctata catttgaaag agacaagggtg gtagctgcac tctatactct tgtgactccc 840
acattaaacc cgatgggtga cagcttccag aatagggaga tgcaggcagg aattaggaag 900
gtgtttgcat ttctgaaaca ctag 924
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<210> 231

<211> 315

<212> PRT

<213> Homo sapiens

<400> 231

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Met Thr Asn Gln Thr Gln Met Met Glu Phe Leu Leu Val Arg Phe Thr
  1              5              10              15

Glu Asn Trp Val Leu Leu Arg Leu His Ala Leu Leu Phe Ser Leu Ile
      20              25              30

Tyr Leu Thr Ala Val Leu Met Asn Leu Val Ile Ile Leu Leu Met Ile
      35              40              45

Leu Asp His Arg Leu His Met Ala Met Tyr Phe Phe Leu Arg His Leu
      50              55              60

Ser Phe Leu Asp Leu Cys Leu Ile Ser Ala Thr Val Pro Lys Ser Ile
      65              70              75              80

Leu Asn Ser Val Ala Ser Thr Asp Ser Ile Ser Phe Leu Gly Cys Val
      85              90              95

Leu Gln Leu Phe Leu Val Val Leu Leu Ala Gly Ser Glu Ile Gly Ile
      100             105             110

Leu Thr Ala Met Ser Tyr Asp Arg Tyr Ala Ala Ile Cys Cys Pro Leu
      115             120             125

His Cys Glu Ala Val Met Ser Arg Gly Leu Cys Val Gln Leu Met Ala
      130             135             140

Leu Ser Trp Leu Asn Arg Gly Ala Leu Gly Leu Leu Tyr Thr Ala Gly
      145             150             155             160
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Thr Phe Ser Leu Asn Phe Tyr Gly Ser Asp Glu Leu His Gln Phe Phe
 165 170 175
 Cys Asp Val Pro Ala Leu Leu Lys Leu Thr Cys Ser Lys Glu His Ala
 180 185 190
 Ile Ile Ser Val Ser Val Ala Ile Gly Val Cys Tyr Ala Phe Ser Cys
 195 200 205
 Leu Val Cys Ile Val Val Ser Tyr Val Tyr Ile Phe Ser Ala Val Leu
 210 215 220
 Arg Ile Ser Gln Arg Gln Arg Gln Ser Lys Ala Phe Ser Asn Cys Val
 225 230 235 240
 Pro His Leu Ile Val Val Thr Val Phe Leu Val Thr Gly Ala Val Ala
 245 250 255
 Tyr Leu Lys Pro Gly Ser Asp Ala Pro Ser Ile Leu Asp Leu Leu Val
 260 265 270
 Ser Val Phe Tyr Ser Val Ala Pro Pro Thr Leu Asn Pro Val Ile Tyr
 275 280 285
 Cys Leu Lys Asn Lys Asp Ile Lys Ser Ala Leu Ser Lys Val Leu Trp
 290 295 300
 Asn Val Arg Ser Ser Gly Val Met Lys Asp Asp
 305 310 315

<210> 232
 <211> 948
 <212> DNA
 <213> Homo sapiens

<400> 232
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 ttagtcatca ttctcctcat gattctggac catcgctctc acatggcaat gtactttttc 180
 ctccgacatt tgtccttctt agacctgtgt ctcatctctg ccacagtccc caaatccatc 240
 ctcaactctg tcgcctccac tgactccatc tcttctctgg ggtgtgtgtt gcagctcttc 300
 ttggtgggtac tgctggctgg atcagagatt ggcacacctt ctgccatgtc ctatgaccgc 360
 tatgctgcca tctgctgccc cctacactgt gaggtgtgca tgagcagagg gctctgtgtc 420
 cagttgatgg ctctgtcctg gctcaacaga ggggccttgg gactcttgta cacagctgga 480
 acattctctc tgaattttta tggctctgat gagctacatc agttcttctg cgatgtccct 540
 gccctactaa agctcacttg ttctaaagaa catgccatca ttagtgtcag tgtggccatt 600
 ggggtctgtt atgcatcttc atgttttagt tgcattgtag tttcctatgt gtacattttc 660
 tctgtctgtt taaggatata acagagacag agacaatcca aagccttttc caactgtgtg 720
 cctcacctca ttgttgtcac tgtgtttctt gtaacagggt ctgttgctta tttaaagcca 780
 ggggtctgat caccttctat tctagacttg ctggtgtctg tgttctattc tgtcgcacct 840
 ccaaccttga accctgttat ctactgtctg aagaacaagg acattaaatc cgctctgagt 900
 aaagtccctg ggaatgtag aagcagtggt gtaatgaaag atgactaa 948

<210> 233
 <211> 325

<212> PRT

<213> Homo sapiens

<400> 233

Met	Phe	Leu	Tyr	Leu	Cys	Phe	Ile	Phe	Gln	Arg	Thr	Cys	Ser	Glu	Glu
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Met	Glu	Glu	Glu	Asn	Ala	Thr	Leu	Leu	Thr	Glu	Phe	Val	Leu	Thr	Gly
			20					25					30		
Phe	Leu	His	Gln	Pro	Asp	Cys	Lys	Ile	Pro	Leu	Phe	Leu	Ala	Phe	Leu
		35					40					45			
Val	Ile	Tyr	Leu	Ile	Thr	Ile	Met	Gly	Asn	Leu	Gly	Leu	Ile	Val	Leu
	50					55					60				
Ile	Trp	Lys	Asp	Pro	His	Leu	His	Ile	Pro	Met	Tyr	Leu	Phe	Leu	Gly
65					70					75					80
Ser	Leu	Ala	Phe	Val	Asp	Ala	Ser	Leu	Ser	Ser	Thr	Val	Thr	Pro	Lys
				85					90					95	
Met	Leu	Ile	Asn	Phe	Leu	Ala	Lys	Ser	Lys	Met	Ile	Ser	Leu	Ser	Glu
			100					105					110		
Cys	Met	Val	Gln	Phe	Phe	Ser	Leu	Val	Thr	Thr	Val	Thr	Thr	Glu	Cys
		115					120					125			
Phe	Leu	Leu	Ala	Thr	Met	Ala	Tyr	Asp	Arg	Tyr	Val	Ala	Ile	Cys	Lys
	130					135					140				
Ala	Leu	Leu	Tyr	Pro	Val	Ile	Met	Thr	Asn	Glu	Leu	Cys	Ile	Gln	Leu
145					150					155					160
Leu	Val	Leu	Ser	Phe	Ile	Gly	Gly	Leu	Leu	His	Ala	Leu	Ile	His	Glu
				165				170						175	
Ala	Phe	Ser	Phe	Arg	Leu	Thr	Phe	Cys	Asn	Ser	Asn	Ile	Ile	Gln	His
			180					185						190	
Phe	Tyr	Cys	Asp	Ile	Ile	Pro	Leu	Leu	Lys	Ile	Ser	Cys	Thr	Asp	Ser
		195					200					205			
Ser	Ile	Asn	Phe	Leu	Met	Val	Phe	Ile	Phe	Ala	Gly	Ser	Val	Gln	Val
	210					215					220				
Phe	Thr	Ile	Gly	Thr	Ile	Leu	Ile	Ser	Tyr	Thr	Ile	Ile	Leu	Phe	Thr
225					230					235					240
Ile	Leu	Glu	Lys	Lys	Ser	Ile	Lys	Gly	Ile	Arg	Lys	Ala	Val	Ser	Thr
			245					250						255	
Cys	Gly	Ala	His	Leu	Leu	Ser	Val	Ser	Leu	Tyr	Tyr	Gly	Pro	Leu	Thr
			260					265					270		
Phe	Lys	Tyr	Leu	Gly	Ser	Ala	Ser	Pro	Gln	Ala	Asp	Asp	Gln	Asp	Met
		275					280					285			

Met Glu Ser Leu Phe Tyr Thr Val Ile Val Pro Leu Leu Asn Pro Met
 290 295 300

Ile Tyr Ser Leu Arg Asn Lys Gln Val Ile Ala Ser Phe Thr Lys Met
 305 310 315 320

Phe Lys Ser Asn Val
 325

<210> 234
 <211> 978
 <212> DNA
 <213> Homo sapiens

<400> 234
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 ataccgctct tcctggcatt cttggtaata tatctcatca ccatcatggg gaatcttggt 180
 ctaattgttc tcactctggaa agaccctcac cttcatatcc caatgtactt attccttggg 240
 agtttagcct ttgtggatgc ttcgttatca tccacagtga ctccgaagat gctgatcaac 300
 ttcttagcta agagtaagat gatatctctc tctgaatgca tgggtacaatt tttttccctt 360
 gtaaccactg taaccacaga atgttttctc ttggcaacaa tggcatatga tcgctatgta 420
 gccatttgca aagctttact ttatccagtc attatgacca atgaactatg cattcagcta 480
 ttagtcttgt catttatagg tggccttctt catgctttaa tccatgaagc tttttcattc 540
 agattaacct tctgtaattc caacataata caacactttt actgtgacat tatcccattg 600
 ttaaagattt cctgtactga ttctcttatt aacttttctaa tgggtttttat tttcgcagg 660
 tctgttcaag tttttaccat tggaactatt cttatatctt atacaattat cctctttaca 720
 atcttagaaa agaagtctat caaagggata cgaaaagctg tctccacctg tgggggctcat 780
 ctcttatctg tatctttata ctatggcccc ctcaccttca aatatctggg ctctgcatct 840
 ccgcaagcag atgaccaaga tatgatggag tctctatttt acactgtcat agttcccttta 900
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 ttcaaaaagca atgttttag 978

<210> 235
 <211> 314
 <212> PRT
 <213> Homo sapiens

<400> 235
 Met Ser Asn Glu Asp Met Glu Gln Asp Asn Thr Thr Leu Leu Thr Glu
 1 5 10 15

Phe Val Leu Thr Gly Leu Thr Tyr Gln Pro Glu Trp Lys Met Pro Leu
 20 25 30

Phe Leu Val Phe Leu Val Ile Tyr Leu Ile Thr Ile Val Trp Asn Leu
 35 40 45

Gly Leu Ile Ala Leu Ile Trp Asn Asp Pro Gln Leu His Ile Pro Met
 50 55 60

Tyr Phe Phe Leu Gly Ser Leu Ala Phe Val Asp Ala Trp Ile Ser Ser
 65 70 75 80

Thr Val Thr Pro Lys Met Leu Val Asn Phe Leu Ala Lys Asn Arg Met
 85 90 95
 Ile Ser Leu Ser Glu Cys Met Ile Gln Phe Phe Ser Phe Ala Phe Gly
 100 105 110
 Gly Thr Thr Glu Cys Phe Leu Leu Ala Thr Met Ala Tyr Asp Arg Tyr
 115 120 125
 Val Ala Ile Cys Lys Pro Leu Leu Tyr Pro Val Ile Met Asn Asn Ser
 130 135 140
 Leu Cys Ile Arg Leu Leu Ala Phe Ser Phe Leu Gly Gly Phe Leu His
 145 150 155 160
 Ala Leu Ile His Glu Val Leu Ile Phe Arg Leu Thr Phe Cys Asn Ser
 165 170 175
 Asn Ile Ile His His Phe Tyr Cys Asp Ile Ile Pro Leu Phe Met Ile
 180 185 190
 Ser Cys Thr Asp Pro Ser Ile Asn Phe Leu Met Val Phe Ile Leu Ser
 195 200 205
 Gly Ser Ile Gln Val Phe Thr Ile Val Thr Val Leu Asn Ser Tyr Thr
 210 215 220
 Phe Ala Leu Phe Thr Ile Leu Lys Lys Lys Ser Val Arg Gly Val Arg
 225 230 235 240
 Lys Ala Phe Ser Thr Cys Gly Ala His Leu Leu Ser Val Ser Leu Tyr
 245 250 255
 Tyr Gly Pro Leu Ile Phe Met Tyr Leu Arg Pro Ala Ser Pro Gln Ala
 260 265 270
 Asp Asp Gln Asp Met Ile Asp Ser Val Phe Tyr Thr Ile Ile Ile Pro
 275 280 285
 Leu Leu Asn Pro Ile Ile Tyr Ser Leu Arg Asn Lys Gln Val Ile Asp
 290 295 300
 Ser Phe Thr Lys Met Val Lys Arg Asn Val
 305 310

<210> 236

<211> 945

<212> DNA

<213> Homo sapiens

<400> 236

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 ctcatcacta ttgtgtggaa ccttggtctg attgctctta tctggaatga cccacaactt 180
 cacatcccca tgtacttttt tcttgggagt ttagcctttg ttgatgcttg gatatcttcc 240
 acagtaactc ccaaaatggt ggtaatttc ttggccaaaa acaggatgat atctctgtct 300


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gaatgcatga ttcaattttt ttcttttgca tttgggtggaa ctacagaatg ttttctcttg 360
gcaacaatgg catatgatcg ctatgtagcc atatgcaaac ctttactata tccagtgtatt 420
atgaacaatt cactatgcat acggctgtta gccttctcat ttttaggtgg ctctctccat 480
gccttaattc atgaagtcct tatattcaga ttaaccttct gcaattctaa cataatacat 540
cattttttact gtgatattat accactgttt atgatttcct gtactgacct ttctattaat 600
tttctaattg tttttatttt gtctgggtca attcagggtat tcaccattgt gacagttctt 660
aattcttaca catttgctct tttcacaatc ctaaaaaaga agtctgttag aggcgtaagg 720
aaagcctttt ccacctgtgg agcccatctc ttatctgtct ctttatatta tggcccactt 780
atcttcatgt atttgcgccc tgcattctcca caagcagatg accaagatat gatagactct 840
gtctttttata caatcataat tccttttgta aatcccatga tctacagtct gagaaataaa 900
caagtaatag attcattcac aaaaatggta aaaagaaatg ttttag 945

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<210> 237

<211> 308

<212> PRT

<213> Homo sapiens

<400> 237

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Met Glu Thr Gln Asn Leu Thr Val Val Thr Glu Phe Ile Leu Leu Gly
 1             5             10             15

Leu Thr Gln Ser Gln Asp Ala Gln Leu Leu Val Phe Val Leu Val Leu
          20             25             30

Ile Phe Tyr Leu Ile Ile Leu Pro Gly Asn Phe Leu Ile Ile Phe Thr
          35             40             45

Ile Lys Ser Asp Pro Gly Leu Thr Ala Pro Leu Tyr Phe Phe Leu Gly
          50             55             60

Asn Leu Ala Leu Leu Asp Ala Ser Tyr Ser Phe Ile Val Val Pro Arg
          65             70             75             80

Met Leu Val Asp Phe Leu Ser Glu Lys Lys Val Ile Ser Tyr Arg Ser
          85             90             95

Cys Ile Thr Gln Leu Phe Phe Leu His Phe Leu Gly Ala Gly Glu Met
          100             105             110

Phe Leu Leu Val Val Met Ala Phe Asp Arg Tyr Ile Ala Ile Cys Arg
          115             120             125

Pro Leu His Tyr Ser Thr Ile Met Asn Pro Arg Ala Cys Tyr Ala Leu
          130             135             140

Ser Leu Val Leu Trp Leu Gly Gly Phe Ile His Ser Ile Val Gln Val
          145             150             155             160

Ala Leu Ile Leu His Leu Pro Phe Cys Gly Pro Asn Gln Leu Asp Asn
          165             170             175

Phe Phe Cys Asp Val Pro Gln Val Ile Lys Leu Ala Cys Thr Asn Thr
          180             185             190

Phe Val Val Glu Leu Leu Met Val Ser Asn Ser Gly Leu Leu Ser Leu
          195             200             205

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Leu Cys Phe Leu Gly Leu Leu Ala Ser Tyr Ala Val Ile Leu Cys Arg
 210 215 220
 Ile Arg Glu His Ser Ser Glu Gly Lys Ser Lys Ala Ile Ser Thr Cys
 225 230 235 240
 Thr Thr His Ile Ile Ile Ile Phe Leu Met Phe Gly Pro Ala Ile Phe
 245 250 255
 Ile Tyr Thr Cys Pro Phe Gln Ala Phe Pro Ala Asp Lys Val Val Ser
 260 265 270
 Leu Phe His Thr Val Ile Phe Pro Leu Met Asn Pro Val Ile Tyr Thr
 275 280 285
 Leu Arg Asn Gln Glu Val Lys Ala Ser Met Arg Lys Leu Leu Ser Gln
 290 295 300
 His Met Phe Cys
 305

<210> 238
 <211> 927
 <212> DNA
 <213> Homo sapiens

<400> 238
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 ggaaatttcc tcatcatttt caccataaag tcagaccctg ggctcacagc cccctctat 180
 ttctttctgg gcaacttggc cttactggat gcacacctact cttcattgt gggtcccagg 240
 atgttggtgg acttcctctc tgagaagaag gtaatctcct atagaagctg catcactcag 300
 ctctttttct tgcattttct tggagcggga gagatgttcc tcctcgttgt gatggccttt 360
 gaccgctaca tcgccatctg ccggccttta cactattcaa ccatcatgaa ccctagagcc 420
 tgctatgcat ttcggttggt tctgtggctt gggggcttta tccattccat tgtacaagta 480
 gcccttatcc tgcacttgcc tttctgtggc ccaaaccagc tcgataaact cttctgtgat 540
 gtccaacagg tcatcaagct ggcttgcaac aatacctttg tgggtggagct tctgatggc 600
 tccaacagtg gcctgctcag cctcctgtgc ttctgggcc ttctggcctc ctatgcagtc 660
 atcctctgtc gtataaggga gcactcctct gaaggaaaga gcaaggctat ttccacatgc 720
 accacccata ttatcattat atttctcatg ttgggacctg ctattttcat ctacacttgc 780
 cccttccagg ctttcccagc tgacaaggta gtttctcttt tccatactgt catctttcct 840
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 ttgttaagtc aacatatgtt ttgctga 927

<210> 239
 <211> 343
 <212> PRT
 <213> Homo sapiens

<400> 239
 Met Ala Leu Tyr Phe Ser Leu Ile Leu His Gly Met Ser Asp Leu Phe
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 Phe Leu Ser Thr Gly His Pro Arg Ala Ser Cys Arg Met Glu Ala Met

20					25					30					
Lys	Leu	Leu	Asn	Gln	Ser	Gln	Val	Ser	Glu	Phe	Ile	Leu	Leu	Gly	Leu
	35						40					45			
Thr	Ser	Ser	Gln	Asp	Val	Glu	Phe	Leu	Leu	Phe	Ala	Leu	Phe	Ser	Val
	50					55					60				
Ile	Tyr	Val	Val	Thr	Val	Leu	Gly	Asn	Leu	Leu	Ile	Ile	Val	Thr	Val
65					70					75					80
Phe	Asn	Thr	Pro	Asn	Leu	Asn	Thr	Pro	Met	Tyr	Phe	Leu	Leu	Gly	Asn
				85					90					95	
Leu	Ser	Phe	Val	Asp	Met	Thr	Leu	Ala	Ser	Phe	Ala	Thr	Pro	Lys	Val
			100					105					110		
Ile	Leu	Asn	Leu	Leu	Lys	Lys	Gln	Lys	Val	Ile	Ser	Phe	Ala	Gly	Cys
	115						120					125			
Phe	Thr	Gln	Ile	Phe	Leu	Leu	His	Leu	Leu	Gly	Gly	Val	Glu	Met	Val
	130					135					140				
Leu	Leu	Val	Ser	Met	Ala	Phe	Asp	Arg	Tyr	Val	Ala	Ile	Cys	Lys	Pro
145					150					155					160
Leu	His	Tyr	Met	Thr	Ile	Met	Asn	Lys	Lys	Val	Cys	Val	Leu	Leu	Val
				165					170					175	
Val	Thr	Ser	Trp	Leu	Leu	Gly	Leu	Leu	His	Ser	Gly	Phe	Gln	Ile	Pro
			180					185					190		
Phe	Ala	Val	Asn	Leu	Pro	Phe	Cys	Gly	Pro	Asn	Val	Val	Asp	Ser	Ile
		195					200					205			
Phe	Cys	Asp	Leu	Pro	Leu	Val	Thr	Lys	Leu	Ala	Cys	Ile	Asp	Ile	Tyr
	210					215					220				
Phe	Val	Gln	Val	Val	Ile	Val	Ala	Asn	Ser	Gly	Ile	Ile	Ser	Leu	Ser
225					230					235					240
Cys	Phe	Ile	Ile	Leu	Leu	Ile	Ser	Tyr	Ser	Leu	Ile	Leu	Ile	Thr	Ile
				245					250					255	
Lys	Asn	His	Ser	Pro	Thr	Gly	Gln	Ser	Lys	Ala	Arg	Ser	Thr	Leu	Thr
			260					265					270		
Ala	His	Ile	Thr	Val	Val	Ile	Leu	Phe	Phe	Gly	Pro	Cys	Ile	Phe	Ile
		275					280					285			
Tyr	Ile	Trp	Pro	Phe	Gly	Asn	His	Ser	Val	Asp	Lys	Phe	Leu	Ala	Val
	290					295					300				
Phe	Tyr	Thr	Ile	Ile	Thr	Pro	Ile	Leu	Asn	Pro	Ile	Ile	Tyr	Thr	Leu
305					310					315					320
Arg	Asn	Lys	Glu	Met	Lys	Ile	Ser	Met	Lys	Lys	Leu	Trp	Arg	Ala	Phe

325

330

335

Val Asn Ser Arg Glu Asp Thr
340

<210> 240

<211> 1032

<212> DNA

<213> Homo sapiens

<400> 240

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tcagaattca ttttgctggg actgaccagc tcccaggatg tagagtttct tctctttgcc 180
ctcttctcgg ttatctatgt ggtcacagtt ttgggtaacc ttcttattat agtcacagtg 240
tttaacaccc ctaacctgaa tactcccatg tattttctcc ttggtaatct ctcttttgta 300
gatatgaccc ttgcttcttt tgccaccctt aagggtgattc tgaacttggt aaaaaagcag 360
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ttccttgctg tgttttatac catcatcact cctatcttga atccaattat ctatactctg 960
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<210> 241

<211> 309

<212> PRT

<213> Homo sapiens

<400> 241

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Met Ala Ser Thr Ser Asn Val Thr Glu Leu Ile Phe Thr Gly Leu Phe
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Gln Asp Pro Ala Val Gln Ser Val Cys Phe Val Val Phe Leu Pro Val
      20           25           30

Tyr Leu Ala Thr Val Val Gly Asn Gly Leu Ile Val Leu Thr Val Ser
 35           40           45

Ile Ser Lys Ser Leu Asp Ser Pro Met Tyr Phe Phe Leu Ser Cys Leu
 50           55           60

Ser Leu Val Glu Ile Ser Tyr Ser Ser Thr Ile Ala Pro Lys Phe Ile
 65           70           75           80

Ile Asp Leu Leu Ala Lys Ile Lys Thr Ile Ser Leu Glu Gly Cys Leu
      85           90           95

Thr Gln Ile Phe Phe Phe His Phe Phe Gly Val Ala Glu Ile Leu Leu

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100	105	110
Ile Val Val Met Ala Tyr Asp Cys Tyr Val Ala Ile Cys Lys Pro Leu 115 120 125		
His Tyr Met Asn Ile Ile Ser Arg Gln Leu Cys His Leu Leu Val Ala 130 135 140		
Gly Ser Trp Leu Gly Gly Phe Cys His Ser Ile Ile Gln Ile Leu Val 145 150 155 160		
Ile Ile Gln Leu Pro Phe Cys Gly Pro Asn Val Ile Asp His Tyr Phe 165 170 175		
Cys Asp Leu Gln Pro Leu Phe Lys Leu Ala Cys Thr Asp Thr Phe Met 180 185 190		
Glu Gly Val Ile Val Leu Ala Asn Ser Gly Leu Phe Ser Val Phe Ser 195 200 205		
Phe Leu Ile Leu Val Ser Ser Tyr Ile Val Ile Leu Val Asn Leu Arg 210 215 220		
Asn His Ser Ala Glu Gly Arg His Lys Ala Leu Ser Thr Cys Ala Ser 225 230 235 240		
His Ile Thr Val Val Ile Leu Phe Phe Gly Pro Ala Ile Phe Leu Tyr 245 250 255		
Met Arg Pro Ser Ser Thr Phe Thr Glu Asp Lys Leu Val Ala Val Phe 260 265 270		
Tyr Thr Val Ile Thr Pro Met Leu Asn Pro Ile Ile Tyr Thr Leu Arg 275 280 285		
Asn Ala Glu Val Lys Ile Ala Ile Arg Arg Leu Trp Ser Lys Lys Glu 290 295 300		
Asn Pro Gly Arg Glu 305		

<210> 242

<211> 930

<212> DNA

<213> Homo sapiens

<400> 242

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ggcctcatcg ttctgacggt cagtatcagc aagagtctgg attctcccat gtacttcttc 180
cttagctgcc tgtccttggt ggagatcagt tattcctcca ctatcgcccc taaattcatc 240
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ttcttccact tctttggggt tgctgagatc cttttgattg tggatgatggc ctatgattgc 360
tacgtggcca tttgcaagcc tcttcattat atgaacatta tcagtcgtca actgtgtcac 420
cttctggtgg ctggttcctg gctggggggc ttttgtcact ccataattca gattctcgtt 480
atcatccaat tgcccttctg tggtcaccaat gtgattgacc actatttctg tgacctccag 540

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gtcaacttga ggaaccattc tgcagagggg aggcacaaaag ccctctccac ctgtgcttct 720
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agcaaaaagg agaatccagg gagggagtga 930

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<210> 243
 <211> 305
 <212> PRT
 <213> Homo sapiens

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<400> 243
Met Val Ala Thr Asn Asn Val Thr Glu Ile Ile Phe Val Gly Phe Ser
  1             5             10             15

Gln Asn Trp Ser Glu Gln Arg Val Ile Ser Val Met Phe Leu Leu Met
      20             25             30

Tyr Thr Ala Val Val Leu Gly Asn Gly Leu Ile Val Val Thr Ile Leu
  35             40             45

Ala Ser Lys Val Leu Thr Ser Pro Met Tyr Phe Phe Leu Ser Tyr Leu
  50             55             60

Ser Phe Val Glu Ile Cys Tyr Cys Ser Val Met Ala Pro Lys Leu Ile
  65             70             75             80

Phe Asp Ser Phe Ile Lys Arg Lys Val Ile Ser Leu Lys Gly Cys Leu
      85             90             95

Thr Gln Met Phe Ser Leu His Phe Phe Gly Gly Thr Glu Ala Phe Leu
  100            105            110

Leu Met Val Met Ala Tyr Asp Arg Tyr Val Ala Ile Cys Lys Pro Leu
  115            120            125

His Tyr Met Ala Ile Met Asn Gln Arg Met Cys Gly Leu Leu Val Arg
  130            135            140

Ile Ala Trp Gly Gly Gly Leu Leu His Ser Val Gly Gln Thr Phe Leu
  145            150            155            160

Ile Phe Gln Leu Pro Phe Cys Gly Pro Asn Ile Met Asp His Tyr Phe
      165            170            175

Cys Asp Val His Pro Val Leu Glu Leu Ala Cys Ala Asp Thr Phe Phe
      180            185            190

Ile Ser Leu Leu Ile Ile Thr Asn Gly Gly Ser Ile Ser Val Val Ser
      195            200            205

Phe Phe Val Leu Met Ala Ser Tyr Leu Ile Ile Leu His Phe Leu Arg
  210            215            220

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Ser His Asn Leu Glu Gly Gln His Lys Ala Leu Ser Thr Cys Ala Ser
 225 230 235 240

His Val Thr Val Val Asp Leu Phe Phe Ile Pro Cys Ser Leu Val Tyr
 245 250 255

Ile Arg Pro Cys Val Thr Leu Pro Ala Asp Lys Ile Val Ala Val Phe
 260 265 270

Tyr Thr Val Val Thr Pro Leu Leu Asn Pro Val Ile Tyr Ser Phe Arg
 275 280 285

Asn Ala Glu Val Lys Asn Ala Met Arg Arg Phe Ile Gly Gly Lys Val
 290 295 300

Ile
 305

<210> 244
 <211> 918
 <212> DNA
 <213> Homo sapiens

<400> 244
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 ggccctcattg tggtagccat cctggccagc aaagtgtca cctcccccat gtatttcttt 180
 ctcagctact tatcctttgt ggagatctgc tactgttctg tcatggcccc caagcttatt 240
 tttgactcct ttatcaagag gaaagtcatt tctctcaagg gctgcctcac acagatgttt 300
 tccctccatt tcttggtgg cactgaggcc tttctcctga tggatgatgg ctatgaccgc 360
 tatgtggcca tctgcaagcc cttgcaactac atggccatca tgaaccagcg aatgtgtggt 420
 ctccctcgtga ggatagcatg gggcgggggc ctgctgcatt ctgttgggca aaccttctctg 480
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 ccagtgtcgg agctggcctg cgcagacacc ttcttcatta gcctgctgat catcaccaat 600
 ggcggctcca tctcgtagt cagtttcttc gtgctgatgg ctccctacct gatcatcctg 660
 cacttctctga gaagccacaa cttggagggg cagcacaagg ccctctccac ctgtgcctct 720
 catgtcacag ttgtcgacct gttcttcata ccttgctcct tgggtctatat taggcctgt 780
 gtcacctcc ctgcagacaa gatagttgct gtattttata cagtggtcac acctctcta 840
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 ggggggaaaag taatttga 918

<210> 245
 <211> 303
 <212> PRT
 <213> Homo sapiens

<400> 245
 Met Thr Glu Phe Ile Phe Leu Val Leu Ser Pro Asn Gln Glu Val Gln
 1 5 10 15

Arg Val Cys Phe Val Ile Phe Leu Phe Leu Tyr Thr Ala Ile Val Leu
 20 25 30

Gly Asn Phe Leu Ile Val Leu Thr Val Met Thr Ser Arg Ser Leu Gly
 35 40 45

Ser Pro Met Tyr Phe Phe Leu Ser Tyr Leu Ser Phe Met Glu Ile Cys
 50 55 60
 Tyr Ser Ser Ala Thr Ala Pro Lys Leu Ile Ser Asp Leu Leu Ala Glu
 65 70 75 80
 Arg Lys Val Ile Ser Trp Trp Gly Cys Met Ala Gln Leu Phe Phe Leu
 85 90 95
 His Phe Phe Gly Gly Thr Glu Ile Phe Leu Leu Thr Val Met Ala Tyr
 100 105 110
 Asp His Tyr Val Ala Ile Cys Lys Pro Leu Ser Tyr Thr Thr Ile Met
 115 120 125
 Asn Trp Gln Val Cys Thr Val Leu Val Gly Ile Ala Trp Val Gly Gly
 130 135 140
 Phe Met His Ser Phe Ala Gln Ile Leu Leu Ile Phe His Leu Leu Phe
 145 150 155 160
 Cys Gly Pro Asn Val Ile Asn His Tyr Phe Cys Asp Leu Val Pro Leu
 165 170 175
 Leu Lys Leu Ala Cys Ser Asp Thr Phe Leu Ile Gly Leu Leu Ile Val
 180 185 190
 Ala Asn Gly Gly Thr Leu Ser Val Ile Ser Phe Gly Val Leu Leu Ala
 195 200 205
 Ser Tyr Met Val Ile Leu Leu His Leu Arg Thr Trp Ser Ser Glu Gly
 210 215 220
 Trp Cys Lys Ala Leu Ser Thr Cys Gly Ser His Phe Ala Val Val Ile
 225 230 235 240
 Leu Phe Phe Gly Pro Cys Val Phe Asn Ser Leu Arg Pro Ser Thr Thr
 245 250 255
 Leu Pro Ile Asp Lys Met Val Ala Val Phe Tyr Thr Val Ile Thr Ala
 260 265 270
 Ile Leu Asn Pro Val Ile Tyr Ser Leu Arg Asn Ala Glu Met Arg Lys
 275 280 285
 Ala Met Lys Arg Leu Trp Ile Arg Thr Leu Arg Leu Asn Glu Lys
 290 295 300

<210> 246

<211> 912

<212> DNA

<213> Homo sapiens

<400> 246

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gtcatgacca gcagaagcct tgggtccccc atgtacttct tcctcagcta cctctccttc 180
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tgggtgggag gcttcatgca ttcctttgca caaatccttc tcatcttcca cctgctcttc 480
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atcagttttg gggtcctctt agcatcctat atgggtcatct tgctccatct gagaacctgg 660
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ttgttctttg ggcctgctg cttcaactct ctgaggcctt ctaccactct gcccatagac 780
aagatgggtg ctgtgttcta cacagtgata accgcgatcc tgaacctgt catctactct 840
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aatgagaaat ag 912

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<210> 247

<211> 325

<212> PRT

<213> Homo sapiens

<400> 247

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Met Thr Thr Ile Ile Leu Glu Val Asp Asn His Thr Val Thr Thr Arg
  1             5             10             15

Phe Ile Leu Leu Gly Phe Pro Thr Arg Pro Ala Phe Gln Leu Leu Phe
      20             25             30

Phe Ser Ile Phe Leu Ala Thr Tyr Leu Leu Thr Leu Leu Glu Asn Leu
      35             40             45

Leu Ile Ile Leu Ala Ile His Ser Asp Gly Gln Leu His Lys Pro Met
      50             55             60

Tyr Phe Phe Leu Ser His Leu Ser Phe Leu Glu Met Trp Tyr Val Thr
      65             70             75             80

Val Ile Ser Pro Lys Met Leu Val Asp Phe Leu Ser His Asp Lys Ser
      85             90             95

Ile Ser Phe Asn Gly Cys Met Thr Gln Leu Tyr Phe Phe Val Thr Phe
      100            105            110

Val Cys Thr Glu Tyr Ile Leu Leu Ala Ile Met Ala Phe Asp Arg Tyr
      115            120            125

Val Ala Ile Cys Asn Pro Leu Arg Tyr Pro Val Ile Met Thr Asn Gln
      130            135            140

Leu Cys Gly Thr Leu Ala Gly Gly Cys Trp Phe Cys Gly Leu Met Thr
      145            150            155            160

Ala Met Ile Lys Met Val Phe Ile Ala Gln Leu His Tyr Cys Gly Met
      165            170            175

Pro Gln Ile Asn His Tyr Phe Cys Asp Ile Ser Pro Leu Leu Asn Val

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180	185	190
Ser Cys Glu Asp Ala Ser Gln Ala Glu Met Val Asp Phe Phe Leu Ala		
195	200	205
Leu Met Val Ile Ala Ile Pro Leu Cys Val Val Val Ala Ser Tyr Ala		
210	215	220
Ala Ile Leu Ala Thr Ile Leu Arg Ile Pro Ser Ala Gln Gly Arg Gln		
225	230	235
Lys Ala Phe Ser Thr Cys Ala Ser His Leu Thr Val Val Ile Leu Phe		
245	250	255
Tyr Ser Met Thr Leu Phe Thr Tyr Ala Arg Pro Lys Leu Met Tyr Ala		
260	265	270
Tyr Asn Ser Asn Lys Val Val Ser Val Leu Tyr Thr Val Ile Val Pro		
275	280	285
Leu Leu Asn Pro Ile Ile Tyr Cys Leu Arg Asn His Glu Val Lys Ala		
290	295	300
Ala Leu Arg Lys Thr Ile His Cys Arg Gly Ser Gly Pro Gln Gly Asn		
305	310	315
Gly Ala Phe Ser Ser		
325		

<210> 248
 <211> 978
 <212> DNA
 <213> Homo sapiens

<400> 248

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ctgctgacac	tgctggagaa	tcttcttata	atcttagcta	tccacagtga	tgggcagctg	180
cataagccca	tgtacttctt	cttgagccac	ctctccttcc	tggagatgtg	gtatgtcaca	240
gtcatcagcc	ccaagatgct	tgttgacttc	ctcagtcatg	acaagagtat	ttccttcaat	300
ggctgcatga	ctcaacttta	cttttttgtg	acctttgtct	gcaactgagta	catccttctt	360
gctatcatgg	cctttgaccg	ctatgtagcc	atttgtaatc	cactacgcta	cccagtcata	420
atgaccaacc	agctctgtgg	cacactggct	ggaggatgct	ggttctgtgg	actcatgact	480
gccatgatta	agatggtttt	tatagcacia	cttcaactact	gtggcatgcc	tcagatcaat	540
cactactttt	gtgatatact	tccactcctt	aacgtctcct	gtgaggatgc	ctcacaggct	600
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gcacccacag	ctgctatact	tgccaccatc	ctcaggatcc	cttctgctca	gggccgccaa	720
aaggcattct	ccacctgtgc	ctccacactg	accgtcgtaa	ttctcttcta	ttccatgaca	780
cttttcacct	atgcccgtcc	caaactcatg	tatgcctaca	attccaacaa	agtggatatc	840
gttctctaca	ctgtcattgt	tccactcctc	aaccccatca	tttactgtct	gaggaaccaa	900
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ggggctttca	gtagttaa					978

<210> 249
 <211> 327

<212> PRT

<213> Homo sapiens

<400> 249

Met	Ile	Phe	Pro	Ser	His	Asp	Ser	Gln	Ala	Phe	Thr	Ser	Val	Asp	Met
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Glu	Val	Gly	Asn	Cys	Thr	Ile	Leu	Thr	Glu	Phe	Ile	Leu	Leu	Gly	Phe
			20					25					30		
Ser	Ala	Asp	Ser	Gln	Trp	Gln	Pro	Ile	Leu	Phe	Gly	Val	Phe	Leu	Met
		35					40					45			
Leu	Tyr	Leu	Ile	Thr	Leu	Ser	Gly	Asn	Met	Thr	Leu	Val	Ile	Leu	Ile
	50					55					60				
Arg	Thr	Asp	Ser	His	Leu	His	Thr	Pro	Met	Tyr	Phe	Phe	Ile	Gly	Asn
65					70					75					80
Leu	Ser	Phe	Leu	Asp	Phe	Trp	Tyr	Thr	Ser	Val	Tyr	Thr	Pro	Lys	Ile
				85					90					95	
Leu	Ala	Ser	Cys	Val	Ser	Glu	Asp	Lys	Arg	Ile	Ser	Leu	Ala	Gly	Cys
			100					105					110		
Gly	Ala	Gln	Leu	Phe	Phe	Ser	Cys	Val	Val	Ala	Tyr	Thr	Glu	Cys	Tyr
		115					120					125			
Leu	Leu	Ala	Ala	Met	Ala	Tyr	Asp	Arg	His	Ala	Ala	Ile	Cys	Asn	Pro
	130					135					140				
Leu	Leu	Tyr	Ser	Gly	Thr	Met	Ser	Thr	Ala	Leu	Cys	Thr	Gly	Leu	Val
145					150					155					160
Ala	Gly	Ser	Tyr	Ile	Gly	Gly	Phe	Leu	Asn	Ala	Ile	Ala	His	Thr	Ala
				165					170					175	
Asn	Thr	Phe	Arg	Leu	His	Phe	Cys	Gly	Lys	Asn	Ile	Ile	Asp	His	Phe
			180					185					190		
Phe	Cys	Asp	Ala	Pro	Pro	Leu	Val	Lys	Met	Ser	Cys	Thr	Asn	Thr	Arg
		195					200					205			
Val	Tyr	Glu	Lys	Val	Leu	Leu	Gly	Val	Val	Gly	Phe	Thr	Val	Leu	Ser
	210					215					220				
Ser	Ile	Leu	Ala	Ile	Leu	Ile	Ser	Tyr	Val	Asn	Ile	Leu	Leu	Ala	Ile
225					230					235					240
Leu	Arg	Ile	His	Ser	Ala	Ser	Gly	Arg	His	Lys	Ala	Phe	Ser	Thr	Cys
				245					250					255	
Ala	Ser	His	Leu	Ile	Ser	Val	Met	Leu	Phe	Tyr	Gly	Ser	Leu	Leu	Phe
			260					265					270		
Met	Tyr	Ser	Arg	Pro	Ser	Ser	Thr	Tyr	Ser	Leu	Glu	Arg	Asp	Lys	Val
		275					280					285			

Ala Ala Leu Phe Tyr Thr Val Ile Asn Pro Leu Leu Asn Pro Leu Ile
 290 295 300

Tyr Ser Leu Arg Asn Lys Asp Ile Lys Glu Ala Phe Arg Lys Ala Thr
 305 310 315 320

Gln Thr Ile Gln Pro Gln Thr
 325

<210> 250
 <211> 984
 <212> DNA
 <213> Homo sapiens

<400> 250
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 attctatttg gagtgtttct gatgctctat ttgataacct tgtcaggaaa catgaccttg 180
 gttatcttaa tccgaactga ttcccacttg catcacaccta tgtacttttt cattggcaat 240
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 gtctcagaag ataagcgcac ttcccttggt ggatgtgggg ctcagctgtt tttttcctgt 360
 gttgtagcct aactgaatg ctatctcctg gcagccatgg catatgaccg ccatgcagca 420
 atttgtaacc cattgcttta ttcaggtacc atgtccaccg ccctctgtac tgggcttgtt 480
 gctggctcct acataggagg atttttgaat gccatagccc atactgcaa tacattccgc 540
 ctgcattttt gtggtaaaaa tatcattgac cactttttct gtgatgcacc accattggta 600
 aaaatgtcct gtacaaacac caggggtctac gaaaaagtcc tgcttggtgt ggtgggcttc 660
 acagtactct ccagcattct tgctatcctg atttcctatg tcaacatcct cctggctatc 720
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 tactccctag agagggacaa agtagctgct ctgttctaca ccgtgatcaa cccactgctc 900
 aaccctctca tctatagcct gagaaacaaa gatatcaaag aggccttcag gaaagcaaca 960
 cagactatac aaccacaaac atga 984

<210> 251
 <211> 308
 <212> PRT
 <213> Homo sapiens

<400> 251
 Met Thr Met Glu Asn Tyr Ser Met Ala Ala Gln Phe Val Leu Asp Gly
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 Leu Thr Gln Gln Ala Glu Leu Gln Leu Pro Leu Phe Leu Leu Phe Leu
 20 25 30
 Gly Ile Tyr Val Val Thr Val Val Gly Asn Leu Gly Met Ile Leu Leu
 35 40 45
 Ile Ala Val Ser Pro Leu Leu His Thr Pro Met Tyr Tyr Phe Leu Ser
 50 55 60
 Ser Leu Ser Phe Val Asp Phe Cys Tyr Ser Ser Val Ile Thr Pro Lys
 65 70 75 80

Met Leu Val Asn Phe Leu Gly Lys Lys Asn Thr Ile Leu Tyr Ser Glu
85 90 95

Cys Met Val Gln Leu Phe Phe Phe Val Val Phe Val Val Ala Glu Gly
100 105 110

Tyr Leu Leu Thr Ala Met Ala Tyr Asp Arg Tyr Val Ala Ile Cys Ser
115 120 125

Pro Leu Leu Tyr Asn Ala Ile Met Ser Ser Trp Val Cys Ser Leu Leu
130 135 140

Val Leu Ala Ala Phe Phe Leu Gly Phe Leu Ser Ala Leu Thr His Thr
145 150 155 160

Ser Ala Met Met Lys Leu Ser Phe Cys Lys Ser His Ile Ile Asn His
165 170 175

Tyr Phe Cys Asp Val Leu Pro Leu Leu Asn Leu Ser Cys Ser Asn Thr
180 185 190

His Leu Asn Glu Leu Leu Leu Phe Ile Ile Ala Gly Phe Asn Thr Leu
195 200 205

Val Pro Thr Leu Ala Val Ala Val Ser Tyr Ala Phe Ile Leu Tyr Ser
210 215 220

Ile Leu His Ile Arg Ser Ser Glu Gly Arg Ser Lys Ala Phe Gly Thr
225 230 235 240

Cys Ser Ser His Leu Met Ala Val Val Ile Phe Phe Gly Ser Ile Thr
245 250 255

Phe Met Tyr Phe Lys Pro Pro Ser Ser Asn Ser Leu Asp Gln Glu Lys
260 265 270

Val Ser Ser Val Phe Tyr Thr Thr Val Ile Pro Met Leu Asn Pro Leu
275 280 285

Ile Tyr Ser Leu Arg Asn Lys Asp Val Lys Lys Ala Leu Arg Lys Val
290 295 300

Leu Val Gly Lys
305

<210> 252
<211> 927
<212> DNA
<213> Homo sapiens

<400> 252
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ggcaacctgg gcatgattct cctgattgca gtcagccctc tacttcacac ccccatgtac 180
tatttcctca gcagcttgct cttcgtcgat ttctgtctatt cctctgtcat tactcccaaa 240
atgctggtga acttcctagg aaagaagaat acaatccttt actctgagtg catggtccag 300

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ctcttttttct ttgtggtcctt tgtggtggct gaggggttacc tcctgactgc catggcatat 360
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tgctcactgc tagtgctggc tgccttcttc ttgggctttc tctctgcctt gactcataca 480
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<210> 253
 <211> 322
 <212> PRT
 <213> Homo sapiens

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<400> 253
Met Ser Pro Glu Asn Gln Ser Ser Val Ser Glu Phe Leu Leu Leu Gly
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Leu Pro Ile Arg Pro Glu Gln Gln Ala Val Phe Phe Ala Leu Phe Leu
      20             25             30

Gly Met Tyr Leu Thr Thr Val Leu Gly Asn Leu Leu Ile Met Leu Leu
 35             40             45

Ile Gln Leu Asp Ser His Leu His Thr Pro Met Tyr Phe Phe Leu Ser
 50             55             60

His Leu Ala Leu Thr Asp Ile Ser Phe Ser Ser Val Thr Val Pro Lys
 65             70             75             80

Met Leu Met Asn Met Gln Thr Gln His Leu Ala Val Phe Tyr Lys Gly
      85             90             95

Cys Ile Ser Gln Thr Tyr Phe Phe Ile Phe Phe Ala Asp Leu Asp Ser
 100             105             110

Phe Leu Ile Thr Ser Met Ala Tyr Asp Arg Tyr Val Ala Ile Cys His
 115             120             125

Pro Leu His Tyr Ala Thr Ile Met Thr Gln Ser Gln Cys Val Met Leu
 130             135             140

Val Ala Gly Ser Trp Val Ile Ala Cys Ala Cys Ala Leu Leu His Thr
 145             150             155             160

Leu Leu Leu Ala Gln Leu Ser Phe Cys Ala Asp His Ile Ile Pro His
 165             170             175

Tyr Phe Cys Asp Leu Gly Ala Leu Leu Lys Leu Ser Cys Ser Asp Thr
 180             185             190

Ser Leu Asn Gln Leu Ala Ile Phe Thr Ala Ala Leu Thr Ala Ile Met
 195             200             205

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Leu Pro Phe Leu Cys Ile Leu Val Ser Tyr Gly His Ile Gly Val Thr
 210 215 220
 Ile Leu Gln Ile Pro Ser Thr Lys Gly Ile Cys Lys Ala Leu Ser Thr
 225 230 235 240
 Cys Gly Ser His Leu Ser Val Val Thr Ile Tyr Tyr Arg Thr Ile Ile
 245 250 255
 Gly Leu Tyr Phe Leu Pro Pro Ser Ser Asn Thr Asn Asp Lys Asn Ile
 260 265 270
 Ile Ala Ser Val Ile Tyr Thr Ala Val Thr Pro Met Leu Asn Pro Phe
 275 280 285
 Ile Tyr Ser Leu Arg Asn Lys Asp Ile Lys Gly Ala Leu Arg Lys Leu
 290 295 300
 Leu Ser Arg Ser Gly Ala Val Ala His Ala Cys Asn Leu Ser Thr Leu
 305 310 315 320
 Gly Gly

<210> 254
 <211> 969
 <212> DNA
 <213> Homo sapiens

<400> 254
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 gggaacctgc tcatcatgct gctcatccag ctagactctc accttcacac ccccatgtac 180
 ttcttcctta gccacttggc cctcactgac atctcctttt catctgtcac tgtccctaag 240
 atgctgatga acatgcagac tcagcaccta gccgtcctttt acaagggatg catttcacag 300
 acatatTTTT tcatatTTTT tgctgactta gacagtttcc ttatcacttc aatggcatat 360
 gacaggtatg tggccatctg tcatcctcta cattatgcca ccatcatgac tcagagccag 420
 tgtgtcatgc tgggtggctgg gtccctgggtc atcgcttggtg cgtgtgctct tttgcatacc 480
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 cttggtgccc tgctcaagtt gtccctgtcga gacacctccc tcaatcagtt agcaatcttt 600
 acagcagcat tgacagccat tatgcttcca ttctgtgca tcctgggttc ttatgggcac 660
 attgggttca ccatcctcca gattccctct accaagggca tatgcaaagc cttgtccact 720
 tgtggatccc acctctcagt ggtgactatc tattatcgga caattattgg tctctatTTT 780
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 gtcactccca tgttgaacct attcatttac agtctgagaa ataaagacat taagggagcc 900
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 ggaggctga 969

<210> 255
 <211> 307
 <212> PRT
 <213> Homo sapiens

<400> 255

Met	Leu	Asn	Phe	Thr	Asp	Val	Thr	Glu	Phe	Ile	Leu	Leu	Gly	Leu	Thr	1	5	10	15
Ser	Arg	Arg	Glu	Trp	Gln	Val	Leu	Phe	Phe	Ile	Val	Phe	Leu	Val	Val	20	25	30	
Tyr	Ile	Ile	Thr	Val	Val	Gly	Asn	Ile	Gly	Met	Met	Leu	Leu	Ile	Lys	35	40	45	
Val	Ser	Pro	Gln	Leu	Asn	Ser	Pro	Met	Tyr	Phe	Phe	Leu	Ser	His	Leu	50	55	60	
Ser	Phe	Val	Asp	Val	Trp	Phe	Ser	Ser	Asn	Val	Thr	Pro	Lys	Met	Leu	65	70	75	80
Glu	Asn	Leu	Phe	Ser	Asp	Lys	Lys	Thr	Ile	Ser	Tyr	Ala	Asp	Cys	Leu	85	90	95	
Ala	Gln	Cys	Phe	Phe	Phe	Ile	Ala	Leu	Val	His	Val	Glu	Ile	Phe	Ile	100	105	110	
Leu	Ala	Ala	Ile	Ala	Phe	Asp	Arg	Tyr	Thr	Val	Ile	Gly	Asn	Pro	Leu	115	120	125	
Leu	Tyr	Gly	Ser	Lys	Met	Ser	Arg	Gly	Val	Cys	Ile	Arg	Leu	Ile	Thr	130	135	140	
Phe	Pro	Tyr	Ile	Tyr	Gly	Phe	Leu	Thr	Ser	Leu	Thr	Ala	Thr	Leu	Trp	145	150	155	160
Thr	Tyr	Gly	Leu	Tyr	Phe	Cys	Gly	Lys	Ile	Glu	Ile	Asn	His	Phe	Tyr	165	170	175	
Cys	Ala	Asp	Pro	Pro	Leu	Ile	Lys	Met	Ala	Cys	Ala	Gly	Thr	Phe	Val	180	185	190	
Lys	Glu	Tyr	Thr	Met	Leu	Ile	Leu	Ala	Gly	Ile	Asn	Phe	Thr	Tyr	Ser	195	200	205	
Leu	Thr	Val	Ile	Ile	Ile	Ser	Tyr	Leu	Phe	Ile	Leu	Ile	Ala	Ile	Leu	210	215	220	
Arg	Met	Arg	Ser	Ala	Glu	Gly	Arg	Gln	Lys	Ala	Phe	Ser	Thr	Cys	Gly	225	230	235	240
Ser	His	Pro	Thr	Ala	Val	Ile	Ile	Phe	Tyr	Gly	Thr	Leu	Ile	Phe	Met	245	250	255	
Tyr	Leu	Arg	Arg	Pro	Thr	Glu	Glu	Ser	Val	Glu	Gln	Gly	Lys	Met	Val	260	265	270	
Ala	Val	Phe	Tyr	Thr	Thr	Val	Ile	Pro	Met	Leu	Asn	Pro	Met	Ile	Tyr	275	280	285	
Ser	Leu	Arg	Asn	Lys	Asp	Val	Lys	Lys	Ala	Met	Met	Lys	Val	Ile	Ser	290	295	300	

Arg Ser Cys
305

<210> 256
<211> 924
<212> DNA
<213> Homo sapiens

<400> 256
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tggcaagttc tcttcttcat cgtttttctt gtggtctaca ttatcaccgt ggtgggcaat 120
atcggcatga tgttgtaaat caaggtcagt cctcagctta acagcccat gtactttttc 180
ctcagtcact tgtcatttgt tgatgtgtgg ttttcttcca atgtcacccc taaaatgttg 240
gaaaatctgt tatcagataa aaaaacaatt tcttatgctg gctgttttagc acagtgtttc 300
ttcttcattg ctcttggtcca tgtggaaatt tttattcttg ctgcgattgc ctttgataga 360
tacacagtga ttggaaatcc tttgctttat ggcagcaaaa tgtcaaggga tgtctgtatt 420
cgactgatta ctttccctta catttatggg tttctgacga gtctgacagc aacattatgg 480
acttatggct tgtacttctg tggaaaaatt gagatcaacc atttctactg tgcagatcca 540
cctctcatca aaatggcctg tgccgggacc tttgtaaaag aatatacaat gctcatactt 600
gccggcatca acttcacata ttccctgact gtaattatca tctcttactt attcatcctc 660
attgccattc tgcgaatgcg ctcagcagaa ggaaggcaga aggccttttc cacatgtggg 720
tcccatctga cagctgtcat catattctat ggtactctga tcttcatgta tctcagacgt 780
cccacagagg agtctgtgga gcaggggaag atggtggctg tgttctatac cacagtgatc 840
cccatgttga atcccatgat ctacagtctg aggaacaagg atgtgaaaaa ggccatgatg 900
aaagtgatca gcagatcatg ttaa 924

<210> 257
<211> 299
<212> PRT
<213> Homo sapiens

<400> 257
Met Gly Phe Pro Gly Ile His Ser Trp Gln His Trp Leu Ser Leu Pro
1 5 10 15
Leu Ala Leu Leu Tyr Leu Leu Ala Leu Ser Ala Asn Ile Leu Ile Leu
20 25 30
Ile Ile Ile Asn Lys Glu Ala Ala Leu His Gln Pro Met Tyr Tyr Phe
35 40 45
Leu Gly Ile Leu Ala Met Ala Asp Ile Gly Leu Ala Thr Thr Ile Met
50 55 60
Pro Lys Ile Leu Ala Ile Leu Trp Phe Asn Ala Lys Thr Ile Ser Leu
65 70 75 80
Leu Glu Cys Phe Ala Gln Met Tyr Ala Ile His Cys Phe Val Ala Met
85 90 95
Glu Ser Ser Thr Phe Val Cys Met Ala Ile Asp Arg Tyr Val Ala Ile
100 105 110
Cys Arg Pro Leu Arg Tyr Pro Ser Ile Ile Thr Glu Ser Phe Val Phe
115 120 125

Lys Ala Asn Gly Phe Met Ala Leu Arg Asn Ser Leu Cys Leu Ile Ser
 130 135 140
 Val Pro Leu Leu Ala Ala Gln Arg His Tyr Cys Ser Gln Asn Gln Ile
 145 150 155 160
 Glu His Cys Leu Cys Ser Asn Leu Gly Val Thr Ser Leu Ser Cys Asp
 165 170 175
 Asp Arg Arg Ile Asn Ser Ile Asn Gln Val Leu Leu Ala Trp Thr Leu
 180 185 190
 Met Gly Ser Asp Leu Gly Leu Ile Ile Leu Ser Tyr Ala Leu Ile Leu
 195 200 205
 Tyr Ser Val Leu Lys Leu Asn Ser Pro Glu Ala Ala Ser Lys Ala Leu
 210 215 220
 Ser Thr Cys Thr Ser His Leu Ile Leu Ile Leu Phe Phe Tyr Thr Val
 225 230 235 240
 Ile Ile Val Ile Ser Ile Thr Arg Ser Thr Gly Met Arg Val Pro Leu
 245 250 255
 Ile Pro Val Leu Leu Asn Val Leu His Asn Val Ile Pro Pro Ala Leu
 260 265 270
 Asn Pro Met Val Tyr Ala Leu Lys Asn Lys Glu Leu Arg Gln Gly Leu
 275 280 285
 Tyr Lys Val Leu Arg Leu Gly Val Lys Gly Thr
 290 295

<210> 258
 <211> 900
 <212> DNA
 <213> Homo sapiens

<400> 258
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 ctgcaccagc ctatgtacta tttcctgggc atcttggcta tggcagacat aggcttggct 180
 accaccatca tgcctaagat tttggccatc ttatggttca atgctaagac catcagtctc 240
 ctggagtgtc ttgctcagat gtatgccata cattgctttg tggccatgga atcaagtacc 300
 tttgtctgca tggctattga tagatatgta gccatttgtc gaccgctacg atatccatca 360
 atcatcactg aatcttttgt tttcaaagca aatgggttca tggcactgag aaacagcctg 420
 tgtctcatct cagtgcctct gttggctgcc cagaggcatt actgctccca gaatcaaatt 480
 gagcactgtc tttgttctaa ccttggagtc actagcctat cttgtgatga tcgaagaatc 540
 aatagcatta accaggtcct tttggcttgg acactcatgg gaagtgcctt gggtttgatt 600
 attttatcat atgctctaata actttactct gtcctgaagc tgaactctcc agaagctgca 660
 tccaaggcct taagtacctg cacctcccac ctcatcttaa tccttttctt ctacacagtc 720
 atcattgtga tttccattac tcgtagtaca ggaatgagag ttccccttat tccagtteta 780
 cttaatgtgc tacacaatgt cattccccct gccctgaacc ccatggtata tgcactcaag 840
 aacaaggaac tcaggcaagg cttatacaag gtacttagac tgggagtga gggcacctga 900

<210> 259
 <211> 321
 <212> PRT
 <213> Homo sapiens

<400> 259
 Met Leu Thr Leu Asn Lys Thr Asp Leu Ile Pro Ala Ser Phe Ile Leu
 1 5 10 15
 Asn Gly Val Pro Gly Leu Glu Asp Thr Gln Leu Trp Ile Ser Phe Pro
 20 25 30
 Phe Cys Ser Met Tyr Val Val Ala Met Val Gly Asn Cys Gly Leu Leu
 35 40 45
 Tyr Leu Ile His Tyr Glu Asp Ala Leu His Lys Pro Met Tyr Tyr Phe
 50 55 60
 Leu Ala Met Leu Ser Phe Thr Asp Leu Val Met Cys Ser Ser Thr Ile
 65 70 75 80
 Pro Lys Ala Leu Cys Ile Phe Trp Phe His Leu Lys Asp Ile Gly Phe
 85 90 95
 Asp Glu Cys Leu Val Gln Met Phe Phe Ile His Thr Phe Thr Gly Met
 100 105 110
 Glu Ser Gly Val Leu Met Leu Met Ala Leu Asp Arg Tyr Val Ala Ile
 115 120 125
 Cys Tyr Pro Leu Arg Tyr Ser Thr Ile Leu Thr Asn Pro Val Ile Ala
 130 135 140
 Lys Val Gly Thr Ala Thr Phe Leu Arg Gly Val Leu Leu Ile Ile Pro
 145 150 155 160
 Phe Thr Phe Leu Thr Lys Arg Leu Pro Tyr Cys Arg Gly Asn Ile Leu
 165 170 175
 Pro His Thr Tyr Cys Asp His Met Ser Val Ala Lys Leu Ser Cys Gly
 180 185 190
 Asn Val Lys Val Asn Ala Ile Tyr Gly Leu Met Val Ala Leu Leu Ile
 195 200 205
 Gly Gly Phe Asp Ile Leu Cys Ile Thr Ile Ser Tyr Thr Met Ile Leu
 210 215 220
 Arg Ala Val Val Ser Leu Ser Ser Ala Asp Ala Arg Gln Lys Ala Phe
 225 230 235 240
 Asn Thr Cys Thr Ala His Ile Cys Ala Ile Val Phe Ser Tyr Thr Pro
 245 250 255
 Ala Phe Phe Ser Phe Phe Ser His Arg Phe Gly Glu His Ile Ile Pro
 260 265 270

Pro Ser Cys His Ile Ile Val Ala Asn Ile Tyr Leu Leu Leu Pro Pro
 275 280 285

Thr Met Asn Pro Ile Val Tyr Gly Val Lys Thr Lys Gln Ile Arg Asp
 290 295 300

Cys Val Ile Arg Ile Leu Ser Gly Ser Lys Asp Thr Lys Ser Tyr Ser
 305 310 315 320

Met

<210> 260
 <211> 966
 <212> DNA
 <213> Homo sapiens

<400> 260
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 atggtaggga attgtggact cctctacctc attcactatg aggatgccct gcacaaaccc 180
 atgtactact tcttggccat gctttccttt actgaccttg ttatgtgctc tagtacaatc 240
 cctaaagccc tctgcatctt ctggtttcat ctcaaggaca ttggatttga tgaatgcctt 300
 gtccagatgt tcttcatcca caccttcaca gggatggagt ctgggggtgct tatgcttatg 360
 gccctggatc gctatgtggc catctgctac cccttacgct attcaactat cctcaccaat 420
 cctgtaattg caaaggttgg gactgccacc ttccctgagag gggattact cattattccc 480
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 ggtctgatgg ttgccctcct gattgggggc tttgacatac tgtgtatcac catctcctat 660
 accatgattc tccgggcagt ggtcagcctc tctcagcag atgctcggca gaaggccttt 720
 aatacctgca ctgcccacat ttgtgccatt gttttctcct atactccagc tttcttctcc 780
 ttcttttccc accgctttgg ggaacacata atccccctt cttgccacat cattgtagcc 840
 aatattttatc tgctcctacc acccactatg aaccctattg tctatggggt gaaaaccaa 900
 cagatacgag actgtgtcat aaggatcctt tcaggttcta aggataccaa atcctacagc 960
 atgtga 966

<210> 261
 <211> 329
 <212> PRT
 <213> Homo sapiens

<400> 261
 Met Ser Ser Thr Leu Gly His Asn Met Glu Ser Pro Asn His Thr Asp
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 Val Asp Pro Ser Val Phe Phe Leu Leu Gly Ile Pro Gly Leu Glu Gln
 20 25 30
 Phe His Leu Trp Leu Ser Leu Pro Val Cys Gly Leu Gly Thr Ala Thr
 35 40 45
 Ile Val Gly Asn Ile Thr Ile Leu Val Val Val Ala Thr Glu Pro Val
 50 55 60

Leu His Lys Pro Val Tyr Leu Phe Leu Cys Met Leu Ser Thr Ile Asp
 65 70 75 80
 Leu Ala Ala Ser Val Ser Thr Val Pro Lys Leu Leu Ala Ile Phe Trp
 85 90 95
 Cys Gly Ala Gly His Ile Ser Ala Ser Ala Cys Leu Ala Gln Met Phe
 100 105 110
 Phe Ile His Ala Phe Cys Met Met Glu Ser Thr Val Leu Leu Ala Met
 115 120 125
 Ala Phe Asp Arg Tyr Val Ala Ile Cys His Pro Leu Arg Tyr Ala Thr
 130 135 140
 Ile Leu Thr Asp Thr Ile Ile Ala His Ile Gly Val Ala Ala Val Val
 145 150 155 160
 Arg Gly Ser Leu Leu Met Leu Pro Cys Pro Phe Leu Ile Gly Arg Leu
 165 170 175
 Asn Phe Cys Gln Ser His Val Ile Leu His Thr Tyr Cys Glu His Met
 180 185 190
 Ala Val Val Lys Leu Ala Cys Gly Asp Thr Arg Pro Asn Arg Val Tyr
 195 200 205
 Gly Leu Thr Ala Ala Leu Leu Val Ile Gly Val Asp Leu Phe Cys Ile
 210 215 220
 Gly Leu Ser Tyr Ala Leu Ser Ala Gln Ala Val Leu Arg Leu Ser Ser
 225 230 235 240
 His Glu Ala Arg Ser Lys Ala Leu Gly Thr Cys Gly Ser His Val Cys
 245 250 255
 Val Ile Leu Ile Ser Tyr Thr Pro Ala Leu Phe Ser Phe Phe Thr His
 260 265 270
 Arg Phe Gly His His Val Pro Val His Ile His Ile Leu Leu Ala Asn
 275 280 285
 Val Tyr Leu Leu Leu Pro Pro Ala Leu Asn Pro Val Val Tyr Gly Val
 290 295 300
 Lys Thr Lys Gln Ile Arg Lys Arg Val Val Arg Val Phe Gln Ser Gly
 305 310 315 320
 Gln Gly Met Gly Ile Lys Ala Ser Glu
 325

<210> 262
 <211> 990
 <212> DNA
 <213> Homo sapiens

<400> 262

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gtgtgtgggt taggcacagc cacaattgtg ggcaatataa ctattctggt tgttgttgcc 180
actgaaccag tcttgacaaa gcctgtgtac ctttttctgt gcatgctctc aaccatcgac 240
ttggctgcct ctgtctccac agttcccaag ctactggcta tcttctgggt tggagccgga 300
catatatctg cctctgcctg cctggcacag atgttcttca ttcatgcctt ctgcatgatg 360
gagtccactg tgctactggc catggccttt gatcgctacg tggccatctg ccacccactc 420
cgctatgcca caatcctcac tgacaccatc attgcccaca taggggtggc agctgtagtg 480
cgaggctccc tgctcatgct cccatgtccc ttccttattg ggcgttgaa cttctgcca 540
agccatgtga tcctacacac gtactgtgag cacatggctg tggagaagct ggcctgtgga 600
gacaccaggc ctaaccgtgt gtatgggctg acagctgcac tgggtgcat tgggggtgac 660
ttgttttgca ttggtctctc ctatgcccta agtgcacaag ctgtccttcg cctctcatcc 720
catgaagctc ggtccaaggc cctagggacc tgtggttccc atgtctgtgt catcctcatc 780
tcttatacac cagccctctt ctctttttt acacaccgct ttggccatca cgttccagtc 840
catattcaca ttcttttggc caatgtttat ctgcttttgc cacctgctct taatcctgtg 900
gtatatggag ttaagaccaa acagatccgt aaaagagttg tcagggtgtt tcaaagtggg 960
caggggaatgg gcatcaaggc atctgagtga 990

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<210> 263

<211> 314

<212> PRT

<213> Homo sapiens

<400> 263

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Met Leu Gly Leu Asn Gly Thr Pro Phe Gln Pro Ala Thr Leu Gln Leu
 1              5              10              15

Thr Gly Ile Pro Gly Ile Gln Thr Gly Leu Thr Trp Val Ala Leu Ile
      20              25              30

Phe Cys Ile Leu Tyr Met Ile Ser Ile Val Gly Asn Leu Ser Ile Leu
      35              40              45

Thr Leu Val Phe Trp Glu Pro Ala Leu His Gln Pro Met Tyr Tyr Phe
      50              55              60

Leu Ser Met Leu Ala Leu Asn Asp Leu Gly Val Ser Phe Ser Thr Leu
      65              70              75              80

Pro Thr Val Ile Ser Thr Phe Cys Phe Asn Tyr Asn His Val Ala Phe
      85              90              95

Asn Ala Cys Leu Val Gln Met Phe Phe Ile His Thr Phe Ser Phe Met
      100              105              110

Glu Ser Gly Ile Leu Leu Ala Met Ser Leu Asp Arg Phe Val Ala Ile
      115              120              125

Cys Tyr Pro Leu Arg Tyr Val Thr Val Leu Thr His Asn Arg Ile Leu
      130              135              140

Ala Met Gly Leu Gly Ile Leu Thr Lys Ser Phe Thr Thr Leu Phe Pro
      145              150              155              160

Phe Pro Phe Val Val Lys Arg Leu Pro Phe Cys Lys Gly Asn Val Leu

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	165		170		175
His His Ser Tyr Cys Leu His Pro Asp Leu Met Lys Val Ala Cys Gly					
	180		185		190
Asp Ile His Val Asn Asn Ile Tyr Gly Leu Leu Val Ile Ile Phe Thr					
	195		200		205
Tyr Gly Met Asp Ser Thr Phe Ile Leu Leu Ser Tyr Ala Leu Ile Leu					
	210		215		220
Arg Ala Met Leu Val Ile Ile Ser Gln Glu Gln Arg Leu Lys Ala Leu					
	225		230		235
Asn Thr Cys Met Ser His Ile Cys Ala Val Leu Ala Phe Tyr Val Pro					
	245		250		255
Ile Ile Ala Val Ser Met Ile His Arg Phe Trp Lys Ser Ala Pro Pro					
	260		265		270
Val Val His Val Met Met Ser Asn Val Tyr Leu Phe Val Pro Pro Met					
	275		280		285
Leu Asn Pro Ile Ile Tyr Ser Val Lys Thr Lys Glu Ile Arg Lys Gly					
	290		295		300
Ile Leu Lys Phe Phe His Lys Ser Gln Ala					
	305		310		

<210> 264
 <211> 945
 <212> DNA
 <213> Homo sapiens

<400> 264
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 gggatacaaa caggcctcac ctgggttgcc ctgattttct gcatcctcta catgatctcc 120
 attgtaggta acctcagcat tctcactctg gtgttttggg agcctgctct gcatcagccc 180
 atgtactact tcctctctat gctcgtcttc aatgatctgg gagtgtcctt ttctacactt 240
 cccactgtga tttctacttt ctgcttcaac tacaaccatg ttgcgtttaa tgcttgctg 300
 gtccagatgt tcttcatcca cactttctcc ttcatggagt caggcatact gctggccatg 360
 agcttggatc gctttgtggc tatttggtat ccattacgct atgtcactgt gctcactcac 420
 aaccgtatat tggctatggg tctgggcatc cttaccaaga gtttcaccac tctcttcct 480
 ttcccttttg tggtgaaacg actgcccttc tgcaaaggca atgttttgca tcaactcctac 540
 tgtctccatc cagatctcat gaaagtagca tgtggagaca tccatgttaa caacatttat 600
 gggctcttgg tgatcatttt tacctatggt atggactcaa ctttcatcct gctttcctac 660
 gcattgatcc tgagagccat gctgggtcatc atatcccagg aacagcggct caaggcactc 720
 aacacctgca tgtcacacat ctgtgcagtg ctggcctttt atgtgcccac aattgctgtc 780
 tccatgattc accgcttctg gaaaagtgtc ccacctgttg ttcatgtcat gatgtccaat 840
 gtctacctgt ttgtaccacc catgtctaac cctatcatct acagtgtgaa aaccaaggag 900
 atccgcaaag ggattctcaa gttcttccat aaatcccagg cctga 945

<210> 265
 <211> 312
 <212> PRT

<213> Homo sapiens

<400> 265

Met	Gly	Leu	Phe	Asn	Val	Thr	His	Pro	Ala	Phe	Phe	Leu	Leu	Thr	Gly	
1				5					10						15	
Ile	Pro	Gly	Leu	Glu	Ser	Ser	His	Ser	Trp	Leu	Ser	Gly	Pro	Leu	Cys	
			20					25					30			
Val	Met	Tyr	Ala	Val	Ala	Leu	Gly	Gly	Asn	Thr	Val	Ile	Leu	Gln	Ala	
		35					40					45				
Val	Arg	Val	Glu	Pro	Ser	Leu	His	Glu	Pro	Met	Tyr	Tyr	Phe	Leu	Ser	
	50					55					60					
Met	Leu	Ser	Phe	Ser	Asp	Val	Ala	Ile	Ser	Met	Ala	Thr	Leu	Pro	Thr	
65					70					75					80	
Val	Leu	Arg	Thr	Phe	Cys	Leu	Asn	Ala	Arg	Asn	Ile	Thr	Phe	Asp	Ala	
				85					90					95		
Cys	Leu	Ile	Gln	Met	Phe	Leu	Ile	His	Phe	Phe	Ser	Met	Met	Glu	Ser	
			100					105					110			
Gly	Ile	Leu	Leu	Ala	Met	Ser	Phe	Asp	Arg	Tyr	Val	Ala	Ile	Cys	Asp	
		115					120					125				
Pro	Leu	Arg	Tyr	Ala	Thr	Val	Leu	Thr	Thr	Glu	Val	Ile	Ala	Ala	Met	
	130					135					140					
Gly	Leu	Gly	Ala	Ala	Ala	Arg	Ser	Phe	Ile	Thr	Leu	Phe	Pro	Leu	Pro	
145					150					155					160	
Phe	Leu	Ile	Lys	Arg	Leu	Pro	Ile	Cys	Arg	Ser	Asn	Val	Leu	Ser	His	
				165					170					175		
Ser	Tyr	Cys	Leu	His	Pro	Asp	Met	Met	Arg	Leu	Ala	Cys	Ala	Asp	Ile	
			180					185					190			
Ser	Ile	Asn	Ser	Ile	Tyr	Gly	Leu	Phe	Val	Leu	Val	Ser	Thr	Phe	Gly	
		195					200					205				
Met	Asp	Leu	Phe	Phe	Ile	Phe	Leu	Ser	Tyr	Val	Leu	Ile	Leu	Arg	Ser	
	210					215					220					
Val	Met	Ala	Thr	Ala	Ser	Arg	Glu	Glu	Arg	Leu	Lys	Ala	Leu	Asn	Thr	
225					230					235					240	
Cys	Val	Ser	His	Ile	Leu	Ala	Val	Leu	Ala	Phe	Tyr	Val	Pro	Met	Ile	
				245					250					255		
Gly	Val	Ser	Thr	Val	His	Arg	Phe	Gly	Lys	His	Val	Pro	Cys	Tyr	Ile	
			260					265					270			
His	Val	Leu	Met	Ser	Asn	Val	Tyr	Leu	Phe	Val	Pro	Pro	Val	Leu	Asn	
		275					280					285				

Pro Leu Ile Tyr Ser Ala Lys Thr Lys Glu Ile Arg Arg Ala Ile Phe
 290 295 300

Arg Met Phe His His Ile Lys Ile
 305 310

<210> 266
 <211> 939
 <212> DNA
 <213> Homo sapiens

<400> 266
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 gagagctctc actcctggct gtcaggggccc ctctgcgtga tgtatgctgt ggcccttggg 120
 ggaaatacag tgatcctgca ggctgtgcga gtggagccca gcctccatga gcccatgtac 180
 tacttctctgt ccatgttgct ctccagtgat gtggccatat ccatggccac actgcccact 240
 gtactccgaa ccttctgcct caatgcccgc aacatcactt ttgatgctg tctaattcag 300
 atgtttctta ttcaacttct ctccatgatg gaatcaggta ttctgctggc catgagtttt 360
 gaccgctatg tggccatttg tgacccttg cgctatgcaa ctgtgctcac cactgaagtc 420
 attgctgcaa tgggttttagg tgcagctgct cgaagcttca tcaccctttt ccctcttccc 480
 tttcttatta agaggctgcc tatctgcaga tccaatgttc tttctcactc ctactgctg 540
 caccagaca tgatgaggct tgccctgtgct gatatcagta tcaacagcat ctatggactc 600
 tttgttcttg tatccacctt tggcatggac ctgtttttta tcttctctc ctatgtgctc 660
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 gtgcaccgct ttgggaagca tgtcccatgc tacatacatg tcctcatgtc aaatgtgtac 840
 ctatttgtgc ctctgtgct caaccctctc atttatagcg ccaagacaaa ggaaatccgc 900
 cgagccattt tccgcatggt tcaccacatc aaaatatga 939

<210> 267
 <211> 326
 <212> PRT
 <213> Homo sapiens

<400> 267
 Met Ser Val Gln Tyr Ser Leu Ser Pro Gln Phe Met Leu Leu Ser Asn
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 Ile Thr Gln Phe Ser Pro Ile Phe Tyr Leu Thr Ser Phe Pro Gly Leu
 20 25 30
 Glu Gly Ile Lys His Trp Ile Phe Ile Pro Phe Phe Phe Met Tyr Met
 35 40 45
 Val Ala Ile Ser Gly Asn Cys Phe Ile Leu Ile Ile Ile Lys Thr Asn
 50 55 60
 Pro Arg Leu His Thr Pro Met Tyr Tyr Leu Leu Ser Leu Leu Ala Leu
 65 70 75 80
 Thr Asp Leu Gly Leu Cys Val Ser Thr Leu Pro Thr Thr Met Gly Ile
 85 90 95
 Phe Trp Phe Asn Ser Gln Ser Ile Tyr Phe Gly Ala Cys Gln Ile Gln
 100 105 110

Met Phe Cys Ile His Ser Phe Ser Phe Met Glu Ser Ser Val Leu Leu
 115 120 125
 Met Met Ser Phe Asp Arg Phe Val Ala Ile Cys His Pro Leu Arg Tyr
 130 135 140
 Ser Val Ile Ile Thr Gly Gln Gln Val Val Arg Ala Gly Leu Ile Val
 145 150 155 160
 Ile Phe Arg Gly Pro Val Ala Thr Ile Pro Ile Val Leu Leu Leu Lys
 165 170 175
 Ala Phe Pro Tyr Cys Gly Ser Val Val Leu Ser His Ser Phe Cys Leu
 180 185 190
 His Gln Glu Val Ile Gln Leu Ala Cys Thr Asp Thr Thr Phe Asn Asn
 195 200 205
 Leu Tyr Gly Leu Met Val Val Val Phe Thr Val Met Leu Asp Leu Val
 210 215 220
 Leu Ile Ala Leu Ser Tyr Gly Leu Ile Leu His Thr Val Ala Gly Leu
 225 230 235 240
 Ala Ser Gln Glu Glu Gln Arg Arg Ala Phe Gln Thr Cys Thr Ala His
 245 250 255
 Leu Cys Ala Val Leu Val Phe Phe Val Pro Met Met Gly Leu Ser Leu
 260 265 270
 Val His Arg Phe Gly Lys His Ala Pro Pro Ala Ile His Leu Leu Met
 275 280 285
 Ala Asn Val Tyr Leu Phe Val Pro Pro Met Leu Asn Pro Ile Ile Tyr
 290 295 300
 Ser Ile Lys Thr Lys Glu Ile His Arg Ala Ile Ile Lys Leu Leu Gly
 305 310 315 320
 Leu Lys Lys Ala Ser Lys
 325

<210> 268

<211> 981

<212> DNA

<213> Homo sapiens

<400> 268

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 atcccctttt tctttatgta catgggtgcc atctcaggca attgtttcat tctgatcatt 180
 attaagacca accctcgtct gcacacaccc atgtactatc tactatcctt gctggccctc 240
 actgacctgg ggctgtgtgt gtccacgttg cccaccacta tggggatctt ctgggtttaac 300
 tcccagagta tctactttgg agcgtgtcaa atccagatgt tctgcatcca ctctttttcc 360
 ttcattggagt cctcagtgc cctcatgatg tcctttgacc gctttgtggc catctgccac 420

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cctctgaggt attcgggtcat tatcactggc cagcaagtgg tcagagcagg cctaattgtc 480
atcttccggg gacctgtggc cactatccct attgtcctcc tcctgaaggc ttttccctac 540
tgtggatctg tggtectctc ccactcattt tgccctgcacc aggaagtgat acagctggcc 600
tgcacagata ccaccttcaa taatctgtat ggactgatgg tggtagtttt cactgtgatg 660
ctggacctgg tgctcatcgc actgtcctat ggactcatcc tgcacacagt agcaggcctg 720
gcctcccaag aggagcagcg ccgtgccttt cagacatgca ccgctcatct ctgtgctgtg 780
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ccacctgcta ttcattcttct tatggccaat gtctaccttt ttgtgcctcc catgcttaac 900
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cttaaaaagg ccagtaaata a                                     981

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<210> 269

<211> 317

<212> PRT

<213> Homo sapiens

<400> 269

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Met Ser Gln Val Thr Asn Thr Thr Gln Glu Gly Ile Tyr Phe Ile Leu
 1             5             10             15

Thr Asp Ile Pro Gly Phe Glu Ala Ser His Ile Trp Ile Ser Ile Pro
          20             25             30

Val Cys Cys Leu Tyr Thr Ile Ser Ile Met Gly Asn Thr Thr Ile Leu
      35             40             45

Thr Val Ile Arg Thr Glu Pro Ser Val His Gln Arg Met Tyr Leu Phe
 50             55             60

Leu Ser Met Leu Ala Leu Thr Asp Leu Gly Leu Thr Leu Thr Thr Leu
 65             70             75             80

Pro Thr Val Met Gln Leu Leu Trp Phe Asn Val Arg Arg Ile Ser Ser
          85             90             95

Glu Ala Cys Phe Ala Gln Phe Phe Phe Leu His Gly Phe Ser Phe Met
      100             105             110

Glu Ser Ser Val Leu Leu Ala Met Ser Val Asp Cys Tyr Val Ala Ile
      115             120             125

Cys Cys Pro Leu His Tyr Ala Ser Ile Leu Thr Asn Glu Val Ile Gly
      130             135             140

Arg Thr Gly Leu Ala Ile Ile Cys Cys Cys Val Leu Ala Val Leu Pro
      145             150             155             160

Ser Leu Phe Leu Leu Lys Arg Leu Pro Phe Cys His Ser His Leu Leu
          165             170             175

Ser Arg Ser Tyr Cys Leu His Gln Asp Met Ile Arg Leu Val Cys Ala
          180             185             190

Asp Ile Arg Leu Asn Ser Trp Tyr Gly Phe Ala Leu Ala Leu Leu Ile
      195             200             205

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Ile Ile Val Asp Pro Leu Leu Ile Val Ile Ser Tyr Thr Leu Ile Leu
210 215 220

Lys Asn Ile Leu Gly Thr Ala Thr Trp Ala Glu Arg Leu Arg Ala Leu
225 230 235 240

Asn Asn Cys Leu Ser His Ile Leu Ala Val Leu Val Leu Tyr Ile Pro
245 250 255

Met Val Gly Val Ser Met Thr His Arg Phe Ala Lys His Ala Ser Pro
260 265 270

Leu Val His Val Ile Met Ala Asn Ile Tyr Leu Leu Ala Pro Pro Val
275 280 285

Met Asn Pro Ile Ile Tyr Ser Val Lys Asn Lys Gln Ile Gln Trp Gly
290 295 300

Met Leu Asn Phe Leu Ser Leu Lys Asn Met His Ser Arg
305 310 315

<210> 270
<211> 954
<212> DNA
<213> Homo sapiens

<400> 270
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ggatttgagg cctccacat ctggatctcc atccccgtct gctgtctcta caccatctcc 120
atcatgggca ataccacat cctcactgtc attcgcacag agccatctgt ccaccagcgc 180
atgtatctgt ttctctccat gctggccctg acggacctgg gtctcaccct caccacctta 240
cccacagtca tgcagcttct ctggttcaac gttcgtagaa tcagctctga ggcctgtttt 300
gctcagtttt tcttccttca tggattctcc tttatggagt cttctgtcct cctggctatg 360
tccgttgact gctatgtggc catctgctgt cccctccatt atgcctccat cctcaccaat 420
gaagtcattg gtagaactgg gttagccatc atttgctgct gtgttctggc ggttcttccc 480
tcccttttct tactcaagcg actgccttcc tgccactccc accttctctc tcgctcctat 540
tgccctcacc aggatatgat ccgcctgggc tgtgctgaca tcaggctcaa cagctgggat 600
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aataactgcc tgtccacat tctagctgtc ctggctctct acattcccat ggttggtgta 780
tctatgactc atcgctttgc caagcatgcc tctccactgg tccatgttat catggccaat 840
atctacctgc tggcaccccc ggtgatgaac cccatcattt acagtgtaaa gaacaagcag 900
atccaatggg gaatgttaaa tttcctttcc ctcaaaaata tgcattcaag atga 954

<210> 271
<211> 320
<212> PRT
<213> Homo sapiens

<400> 271
Met Pro Ser Ala Ser Ala Met Ile Ile Phe Asn Leu Ser Ser Tyr Asn
1 5 10 15

Pro Gly Pro Phe Ile Leu Val Gly Ile Pro Gly Leu Glu Gln Phe His
20 25 30

403

<210> 272
 <211> 963
 <212> DNA
 <213> Homo sapiens

<400> 272
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 atcatctaca ttgtagctgt tgtgggaaac tgcacccctc tctacctcat tgtggtggag 180
 catagtcttc atgaacccat gttcttcttt ctctccatgc tggccatgac tgacctcatc 240
 ttgtccacag ctggtgtgcc taaagcactc agtatctttt ggctaggggc tcgcgaaatc 300
 acattcccag gatgccttac acaaatgttc ttccttcaat ataactttgt cctggattca 360
 gccattctga tggccatggc atttgatcac tatgtagcta tctgttctcc cttgagatat 420
 accaccatct tgactcccaa gaccatcatc aagagtgcct tgggcatctc ctttcgaagc 480
 ttctgcatca tcctgccaga tgtattcttg ctgacatgcc tgcctttctg caggacacgc 540
 atcatacccc acacatactg tgagcatata ggtgttgccc agctcgccctg tgctgatata 600
 tccatcaact tctggtatgg cttttgtgtt cccatcatga cggtcacctc agatgtgatt 660
 ctcatgtctg ttctctacgc acacatcctc tgtgctgtct ttggccttcc ctcccaagat 720
 gcctgccaga aagccctcgg cacttgtggt tctcatgtct gtgtcatcct catgttttat 780
 acacctgcct ttttctccat cctcgcccat cgctttggac acaatgtctc tcgcaccttc 840
 cacatcatgt ttgccaatct ctacattgtt atcccacctg cactcaacct catgggtttac 900
 ggagtgaaga ccaagcagat cagagataag gttatacttt tgttttctaa gggtacagga 960
 tga 963

<210> 273
 <211> 318
 <212> PRT
 <213> Homo sapiens

<400> 273
 Met Pro Thr Val Asn His Ser Gly Thr Ser His Thr Val Phe His Leu
 1 5 10 15
 Leu Gly Ile Pro Gly Leu Gln Asp Gln His Met Trp Ile Ser Ile Pro
 20 25 30
 Phe Phe Ile Ser Tyr Val Thr Ala Leu Leu Gly Asn Ser Leu Leu Ile
 35 40 45
 Phe Ile Ile Leu Thr Lys Arg Ser Leu His Glu Pro Met Tyr Leu Phe
 50 55 60
 Leu Cys Met Leu Ala Gly Ala Asp Ile Val Leu Ser Thr Cys Thr Ile
 65 70 75 80
 Pro Gln Ala Leu Ala Ile Phe Trp Phe Arg Ala Gly Asp Ile Ser Leu
 85 90 95
 Asp Arg Cys Ile Thr Gln Leu Phe Phe Ile His Ser Thr Phe Ile Ser
 100 105 110
 Glu Ser Gly Ile Leu Leu Val Met Ala Phe Asp His Tyr Ile Ala Ile
 115 120 125

Cys Tyr Pro Leu Arg Tyr Thr Thr Ile Leu Thr Asn Ala Leu Ile Lys
 130 135 140
 Lys Ile Cys Val Thr Val Ser Leu Arg Ser Tyr Gly Thr Ile Phe Pro
 145 150 155 160
 Ile Ile Phe Leu Leu Lys Arg Leu Thr Phe Cys Gln Asn Asn Ile Ile
 165 170 175
 Pro His Thr Phe Cys Glu His Ile Gly Leu Ala Lys Tyr Ala Cys Asn
 180 185 190
 Asp Ile Arg Ile Asn Ile Trp Tyr Gly Phe Ser Ile Leu Met Ser Thr
 195 200 205
 Val Val Leu Asp Val Val Leu Ile Phe Ile Ser Tyr Met Leu Ile Leu
 210 215 220
 His Ala Val Phe His Met Pro Ser Pro Asp Ala Cys His Lys Ala Leu
 225 230 235 240
 Asn Thr Phe Gly Ser His Val Cys Ile Ile Ile Leu Phe Tyr Gly Ser
 245 250 255
 Gly Ile Phe Thr Ile Leu Thr Gln Arg Phe Gly Arg His Ile Pro Pro
 260 265 270
 Cys Ile His Ile Pro Leu Ala Asn Val Cys Ile Leu Ala Pro Pro Met
 275 280 285
 Leu Asn Pro Ile Ile Tyr Gly Ile Lys Thr Lys Gln Ile Gln Glu Gln
 290 295 300
 Val Val Gln Phe Leu Phe Ile Lys Gln Lys Ile Thr Leu Val
 305 310 315

<210> 274

<211> 957

<212> DNA

<213> Homo sapiens

<400> 274

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 cttcttgga acagcctgct catcttcatt atcctcaca agcgcagcct ccatgaaccc 180
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 cctcaggcct tagctatctt ctgggtccgt gctggggaca tctccctgga tcgttgcatc 300
 actcagctct tcttcaccca tccaccttc atctctgagt cagggatctt gctgggtgatg 360
 gcccttgacc actatattgc catatgctac ccactgaggt acaccacat tcttacaat 420
 gctctgatca agaaaatttg tgtgactgtc tctctgagaa gttatggtac aattttccct 480
 atcatatttc ttttaaaaag attgactttc tgccagaata atattattcc acacaccttt 540
 tgtgaacaca ttggcctagc caaatatgca tgtaatgaca ttcgaataaa catttggtat 600
 ggggtttcca ttctaattgc gacgggtggtc ttagatgttg tactaatttt tatttcctat 660
 atgctgattc tccatgctgt cttccacatg ccttctccag atgcttgcca caaagctctc 720
 aacacatttg gctcccattg ctgcatcatc atcctctttt atgggtctgg catcttcaca 780
 atccttacc agaggtttgg acgccacatt ccaccttgta tccacatccc gttgggta 840

gtctgcattc tggctccacc tatgctgaat cccattatTT atgggatcaa aaccaagcaa 900
 atccaggaac aggtgggttca gtttttggtt ataaaacaga aaataacttt ggtttaa 957

<210> 275
 <211> 311
 <212> PRT
 <213> Homo sapiens

<400> 275
 Met Ser Asn Ala Ser Leu Leu Thr Ala Phe Ile Leu Met Gly Leu Pro
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 His Ala Pro Ala Leu Asp Ala Pro Leu Phe Gly Val Phe Leu Val Val
 20 25 30
 Tyr Val Leu Thr Val Leu Gly Asn Leu Leu Ile Leu Leu Val Ile Arg
 35 40 45
 Val Asp Ser His Leu His Thr Thr Met Tyr Tyr Phe Leu Thr Asn Leu
 50 55 60
 Ser Phe Ile Asp Met Trp Phe Ser Thr Val Thr Val Pro Lys Leu Leu
 65 70 75 80
 Met Thr Leu Val Phe Pro Ser Gly Arg Ala Ile Ser Phe His Ser Cys
 85 90 95
 Met Ala Gln Leu Tyr Phe Phe His Phe Leu Gly Gly Thr Glu Cys Phe
 100 105 110
 Leu Tyr Arg Val Met Ser Cys Asp Arg Tyr Leu Ala Ile Ser Tyr Pro
 115 120 125
 Leu Arg Tyr Thr Ser Met Met Thr Gly Arg Ser Cys Thr Leu Leu Ala
 130 135 140
 Thr Ser Thr Trp Leu Ser Gly Ser Leu His Ser Ala Val Gln Ala Ile
 145 150 155 160
 Leu Thr Phe His Leu Pro Tyr Cys Gly Pro Asn Trp Ile Gln His Tyr
 165 170 175
 Leu Cys Asp Ala Pro Pro Ile Leu Lys Leu Ala Cys Ala Asp Thr Ser
 180 185 190
 Ala Ile Glu Thr Val Ile Phe Val Thr Val Gly Ile Val Ala Ser Gly
 195 200 205
 Cys Phe Val Leu Ile Val Leu Ser Tyr Val Ser Ile Val Cys Ser Ile
 210 215 220
 Leu Arg Ile Arg Thr Ser Glu Gly Lys His Arg Ala Phe Gln Thr Cys
 225 230 235 240
 Ala Ser His Cys Ile Val Val Leu Cys Phe Phe Gly Pro Gly Leu Phe
 245 250 255

Ile Tyr Leu Arg Pro Gly Ser Arg Lys Ala Val Asp Gly Val Val Ala
260 265 270

Val Phe Tyr Thr Val Leu Thr Pro Leu Leu Asn Pro Val Val Tyr Thr
275 280 285

Leu Arg Asn Lys Glu Val Lys Lys Ala Leu Leu Lys Leu Lys Asp Lys
290 295 300

Val Ala His Ser Gln Ser Lys
305 310

<210> 276
<211> 936
<212> DNA
<213> Homo sapiens

<400> 276
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ctggacgccc ccctctttgg agtcttcctg gtgggtttacg tgctcactgt gctggggaac 120
ctcctcatcc tgctggtgat cagggtggat tctcacctcc acaccacat gtactacttc 180
ctcaccaacc tgctcgttcac tgacatgtgg ttctccactg tcacgggtgcc caaattgctg 240
atgactttgg tggtcccaag tggcagggct atctccttcc acagctgcat ggctcagctc 300
tatttctttc acttcctagg gggcaccgag tggttcctct acaggggtcat gtcctgtgat 360
cgctacctgg ccatcagtta cccgctcagg tacaccagca tgatgactgg gcgctcgtgt 420
actcttctgg ccaccagcac ttggctcagt ggctctctgc actctgctgt ccaggccata 480
ttgactttcc atttgcccta ctgtggaccc aactggatcc agcactattt gtgtgatgca 540
ccgcccaccc tgaaactggc ctgtgcagac acctcagcca tagagactgt catttttggtg 600
actgttggaa tagtggcctc gggctgcttt gtccctgatag tgctgtccta tgtgtccatc 660
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gcctcccact gtatcgtggg cctttgcttc tttggccctg gtcttttcat ttacctgagg 780
ccaggctcca ggaaagctgt ggatggagtt gtggccgttt tctacactgt gctgacgccc 840
cttctcaacc ctgttgtgta caccctgagg aacaaggagg tgaagaaagc tctgttgaag 900
ctgaaagaca aagtagcaca ttctcagagc aaatag 936

<210> 277
<211> 308
<212> PRT
<213> Homo sapiens

<400> 277
Met Glu Leu Gly Asn Val Thr Arg Val Lys Glu Phe Ile Phe Leu Gly
1 5 10 15

Leu Thr Gln Ser Gln Asp Gln Ser Leu Val Leu Phe Leu Phe Leu Cys
20 25 30

Leu Val Tyr Met Thr Thr Leu Leu Gly Asn Leu Leu Ile Met Val Thr
35 40 45

Val Thr Cys Glu Ser Arg Leu His Thr Pro Met Tyr Phe Leu Leu Arg
50 55 60

Asn Leu Ala Ile Leu Asp Ile Cys Phe Ser Ser Thr Thr Ala Pro Lys

65		70		75		80
Val Leu Leu Asp	Leu Leu Ser Lys Lys Lys Thr Ile Ser Tyr Thr Ser					
	85		90			95
Cys Met Thr Gln Ile Phe Leu Phe His Leu Leu Gly Gly Ala Asp Ile						
	100		105			110
Phe Ser Leu Ser Val Met Ala Phe Asp Cys Tyr Met Ala Ile Ser Lys						
	115		120			125
Pro Leu His Tyr Val Thr Ile Met Ser Arg Gly Gln Cys Thr Ala Leu						
	130		135			140
Ile Ser Ala Ser Trp Met Gly Gly Phe Val His Ser Ile Val Gln Ile						
	145		150			155
Ser Leu Leu Leu Pro Leu Pro Phe Cys Gly Pro Asn Val Leu Asp Thr						
	165		170			175
Phe Tyr Cys Asp Val Pro Gln Val Leu Lys Leu Thr Cys Thr Asp Thr						
	180		185			190
Phe Ala Leu Glu Phe Leu Met Ile Ser Asn Asn Gly Leu Val Thr Thr						
	195		200			205
Leu Trp Phe Ile Phe Leu Leu Val Ser Tyr Thr Val Ile Leu Met Thr						
	210		215			220
Leu Arg Ser Gln Ala Gly Gly Gly Arg Arg Lys Ala Ile Ser Thr Cys						
	225		230			235
Thr Ser Pro His His Cys Gly Asp Pro Ala Phe Cys Ala Leu His Leu						
	245		250			255
Cys Leu Cys Pro Ala Leu His Cys Pro Pro His Arg Lys Gly His Leu						
	260		265			270
Cys His Leu His Cys His Leu Pro Ser Ala Glu Pro Phe Asp Leu His						
	275		280			285
Ser Glu Glu Pro Gly Asn Glu Val Ser His Glu Lys Thr Glu Glu Lys						
	290		295			300
Thr Arg Ala Phe						
305						

<210> 278

<211> 927

<212> DNA

<213> Homo sapiens

<400> 278

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caagaccaga gtttggtctt gtttcttttt ttatgtcttg tgtacatgac gactctgctg 120
ggaaacctcc tcatcatggt caccgtgacc tgtgagtctc gccttcacac ccccatgtac 180

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ttcctgctcc gcaatctagc catccttgac atctgcttct cctccacaac tgctcctaaa 240
gtcttgctgg accttctgtc aaagaaaaag accatatcct atacaagctg catgacacag 300
atatttctct tccacctcct tgggtggggca gacatttttt ctctctctgt gatggcggtt 360
gactgctaca tggccatctc caagcccctg cactatgtga ccatcatgag tagagggcaa 420
tgactgcccc tcatctctgc ctcttgatg gggggctttg tccactccat cgtgcagatc 480
tccctgttgc tgcctctccc tttctgtgga cccaatgttc ttgacacttt ctactgcgat 540
gtcccccagg tcctcaaact cacttgcaact gacacttttg ctcttgagtt cttgatgatt 600
tccaacaatg gcctggtcac taccctgtgg tttatcttcc tgcttggtgc ctacacagtc 660
atcctaata ga cgctgaggtc tcaggcagga gggggcagga ggaaagccat ctccacttgc 720
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gcccttcact gccctcccca cagaaaaggc catctctgtc accttcaact tcatctcccc 840
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actgaagaga agactcgtgc cttctga 927

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<210> 279

<211> 315

<212> PRT

<213> Homo sapiens

<400> 279

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Met Phe Ser Pro Asn His Thr Ile Val Thr Glu Phe Ile Leu Leu Gly
  1             5             10             15

Leu Thr Asp Asp Pro Val Leu Glu Lys Ile Leu Phe Gly Val Phe Leu
      20             25             30

Ala Ile Tyr Leu Ile Thr Leu Ala Gly Asn Leu Cys Met Ile Leu Leu
      35             40             45

Ile Arg Thr Asn Ser His Leu Gln Thr Pro Met Tyr Phe Phe Leu Gly
      50             55             60

His Leu Ser Phe Val Asp Ile Cys Tyr Ser Ser Asn Val Thr Pro Asn
      65             70             75             80

Met Leu His Asn Phe Leu Ser Glu Gln Lys Thr Ile Ser Tyr Ala Gly
      85             90             95

Cys Phe Thr Gln Cys Leu Leu Phe Ile Ala Leu Val Ile Thr Glu Phe
      100            105            110

Tyr Ile Leu Ala Ser Met Ala Leu Asp Arg Tyr Val Ala Ile Cys Ser
      115            120            125

Pro Leu His Tyr Ser Ser Arg Met Ser Lys Asn Ile Cys Val Cys Leu
      130            135            140

Val Thr Ile Pro Tyr Met Tyr Gly Phe Leu Ser Gly Phe Ser Gln Ser
      145            150            155            160

Leu Leu Thr Phe His Leu Ser Phe Cys Gly Ser Leu Glu Ile Asn His
      165            170            175

Phe Tyr Cys Ala Asp Pro Pro Leu Ile Met Leu Ala Cys Ser Asp Thr
      180            185            190

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Arg Val Lys Lys Met Ala Met Phe Val Val Ala Gly Phe Asn Leu Ser
195 200 205

Ser Ser Leu Phe Ile Ile Leu Leu Ser Tyr Leu Phe Ile Phe Ala Ala
210 215 220

Ile Phe Arg Ile Arg Ser Ala Glu Gly Arg His Lys Ala Phe Ser Thr
225 230 235 240

Cys Ala Ser His Leu Thr Ile Val Thr Leu Phe Tyr Gly Thr Leu Phe
245 250 255

Cys Met Tyr Val Arg Pro Pro Ser Glu Lys Ser Val Glu Glu Ser Lys
260 265 270

Ile Thr Ala Val Phe Tyr Thr Phe Leu Ser Pro Met Leu Asn Pro Leu
275 280 285

Ile Tyr Ser Leu Arg Asn Thr Asp Val Ile Leu Ala Met Gln Gln Met
290 295 300

Ile Arg Gly Lys Ser Phe His Lys Ile Ala Val
305 310 315

<210> 280
<211> 948
<212> DNA
<213> Homo sapiens

<400> 280
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ccagtgtctag agaagatcct gtttggggta ttcttgcgga tctacctaata cacactggca 120
ggcaacctgt gcatgatcct gctgatcagg accaattccc acctgcaaac acccatgtat 180
ttcttccttg gccacctctc cttttagtag atttgctatt cttccaatgt tactccaaat 240
atgctgcaca atttcctctc agaacagaag accatctcct acgctggatg cttcacacag 300
tgtcttctct tcatcgccct ggtgatcact gagttttaca tccttgcttc aatggcattg 360
gatcgctatg tagccatttg cagccctttg cattacagtt ccaggatgtc caagaacatc 420
tgtgtctgtc tggtcactat cccttacatg tatgggtttc ttagtgggtt ctctcagtca 480
ctgctaacct ttcaacttat cttctgtggc tcccttgaaa tcaatcattt ctactgcgct 540
gatectcctc ttatcatgct ggctgtctct gacaccgctg tcaaaaagat ggcaatgttt 600
gtagttgcag gctttaatct ctcaagctct ctcttcatca ttcttctgtc ctatcttttc 660
atctttgcag cgatcttcag gatccgttct gctgaaggca ggcaaaaagc cttttctacg 720
tgtgtctccc acctgacaat agtcactttg ttttatggaa ccctcttctg catgtacgta 780
aggcctccat cagagaagtc tgtagaggag tccaaaataa ctgcagtcct ttatactttt 840
ttgagcccaa tgctgaacc attgatctat agcctacgga acacagatgt aatccttgcc 900
atgcaacaaa tgattagggg aaaatcctt cataaaattg cagtttag 948

<210> 281
<211> 314
<212> PRT
<213> Homo sapiens

<400> 281
Met Asp Gln Ile Asn His Thr Asn Val Lys Glu Phe Phe Phe Leu Glu
1 5 10 15

Leu Thr Arg Ser Arg Glu Leu Glu Phe Phe Leu Phe Val Val Phe Phe
 20 25 30
 Ala Val Tyr Val Ala Thr Val Leu Gly Asn Ala Leu Ile Val Val Thr
 35 40 45
 Ile Thr Cys Glu Ser Arg Leu His Thr Pro Met Tyr Phe Leu Leu Arg
 50 55 60
 Asn Lys Ser Val Leu Asp Ile Val Phe Ser Ser Ile Thr Val Pro Lys
 65 70 75 80
 Phe Leu Val Asp Leu Leu Ser Asp Arg Lys Thr Ile Ser Tyr Asn Asp
 85 90 95
 Cys Met Ala Gln Ile Phe Phe Phe His Phe Ala Gly Gly Ala Asp Ile
 100 105 110
 Phe Phe Leu Ser Val Met Ala Tyr Asp Arg Tyr Leu Ala Ile Ala Lys
 115 120 125
 Pro Leu His Tyr Val Thr Met Met Arg Lys Glu Val Trp Val Ala Leu
 130 135 140
 Val Val Ala Ser Trp Val Ser Gly Gly Leu His Ser Ile Ile Gln Val
 145 150 155 160
 Ile Leu Met Leu Pro Phe Pro Phe Cys Gly Pro Asn Thr Leu Asp Ala
 165 170 175
 Phe Tyr Cys Tyr Val Leu Gln Val Val Lys Leu Ala Cys Thr Asp Thr
 180 185 190
 Phe Ala Leu Glu Leu Phe Met Ile Ser Asn Asn Gly Leu Val Thr Leu
 195 200 205
 Leu Trp Phe Leu Leu Leu Leu Gly Ser Tyr Thr Val Ile Leu Val Met
 210 215 220
 Leu Arg Ser His Ser Gly Glu Gly Arg Asn Lys Ala Leu Ser Thr Cys
 225 230 235 240
 Thr Ser His Met Leu Val Val Thr Leu His Phe Val Pro Cys Val Tyr
 245 250 255
 Ile Tyr Cys Arg Pro Phe Met Thr Leu Pro Met Asp Thr Thr Ile Ser
 260 265 270
 Ile Asn Asn Thr Val Ile Thr Pro Met Leu Asn Pro Ile Ile Tyr Ser
 275 280 285
 Leu Arg Asn Gln Glu Met Lys Ser Ala Met Gln Arg Leu Gln Arg Arg
 290 295 300
 Leu Gly Pro Ser Glu Ser Arg Lys Trp Gly
 305 310

<210> 282
 <211> 945
 <212> DNA
 <213> Homo sapiens

<400> 282
 atggaccaga tcaaccacac taatgtgaag gagtttttct tcctggaact tacacgttcc 60
 cgagagctgg agtttttctt gtttgtgggc ttctttgctg tgtatgtagc aacagtcctg 120
 ggaaatgcac tcattgtggg cactattacc tgtgagtcct gcctacacac tcctatgtac 180
 tttctcctgc ggaacaaatc agtcctggac atcgtttttt catctatcac cgtccccaag 240
 ttcttggtgg atctttttatc agacaggaaa accatctcct acaatgactg catggcacag 300
 atctttttct tccactttgc tgggtggggca gatatttttt tcctctctgt gatggcctat 360
 gacagatacc ttgcaatcgc caagcccctg cactatgtga ccatgatgag gaaagagggtg 420
 tgggtggcct tgggtgggtggc ttcttggtgg agtggtgggt tgcattcaat catccaggta 480
 attctgatgc ttccattccc cttctgtggc cccaacacac tggatgcctt ctactgttat 540
 gtgctccagg tggtaaaaact ggcctgcact gacacctttg ctttgaggct tttcatgatc 600
 tctaacaacg gactggtgac cctgctctgg ttctctctgc tcctgggctc ctacactgtc 660
 attctggtga tgctgagatc ccactctggg gaggggcgga acaaggccct ctccacgtgc 720
 acgtcccaca tgctggtggg gactcttcac ttctgtcctt gtgtttacat ctactgccgg 780
 cccttcatga cgctgcccac ggacacaacc atatccatta ataacacggt cattaccccc 840
 atgctgaacc ccatcatcta ttccctgaga aatcaagaga tgaagtcagc catgcagagg 900
 ctgcagagga gacttggggc ttccgagagc agaaaatggg ggtga 945

<210> 283
 <211> 311
 <212> PRT
 <213> Homo sapiens

<220>
 <221> MOD_RES
 <222> (253)
 <223> Variable amino acid

<400> 283
 Met Ser Lys Thr Ser Leu Val Thr Ala Phe Ile Leu Thr Gly Leu Pro
 1 5 10 15
 His Ala Pro Gly Leu Asp Ala Pro Leu Phe Gly Ile Phe Leu Val Val
 20 25 30
 Tyr Val Leu Thr Val Leu Gly Asn Leu Leu Ile Leu Leu Val Ile Arg
 35 40 45
 Val Asp Ser His Leu His Thr Pro Met Tyr Tyr Phe Leu Thr Asn Leu
 50 55 60
 Ser Phe Ile Asp Met Trp Phe Ser Thr Val Thr Val Pro Lys Met Leu
 65 70 75 80
 Met Thr Leu Val Ser Pro Ser Gly Arg Ala Ile Ser Phe His Ser Cys
 85 90 95
 Val Ala Gln Leu Tyr Phe Phe His Phe Leu Gly Ser Thr Glu Cys Phe
 100 105 110

Leu Tyr Thr Val Met Ser Tyr Asp Arg Tyr Leu Ala Ile Ser Tyr Pro
 115 120 125
 Leu Arg Tyr Thr Ser Met Met Ser Gly Ser Arg Cys Ala Leu Leu Ala
 130 135 140
 Thr Ser Thr Trp Leu Ser Gly Ser Leu His Ser Ala Val Gln Thr Ile
 145 150 155 160
 Leu Thr Phe His Leu Pro Tyr Cys Gly Pro Asn Gln Ile Gln His Tyr
 165 170 175
 Leu Cys Asp Ala Pro Pro Ile Leu Lys Leu Ala Cys Ala Asp Thr Ser
 180 185 190
 Ala Asn Glu Met Val Ile Phe Val Asp Ile Gly Leu Val Ala Ser Gly
 195 200 205
 Cys Phe Leu Leu Ile Val Leu Ser Tyr Val Ser Ile Val Cys Ser Ile
 210 215 220
 Leu Arg Ile His Thr Ser Glu Gly Arg His Arg Ala Phe Gln Thr Cys
 225 230 235 240
 Ala Ser His Cys Ile Val Val Leu Cys Phe Phe Val Xaa Cys Val Phe
 245 250 255
 Ile Tyr Leu Arg Pro Gly Ser Arg Asp Val Val Asp Gly Val Val Ala
 260 265 270
 Ile Phe Tyr Thr Val Leu Thr Pro Leu Leu Asn Pro Val Val Tyr Thr
 275 280 285
 Leu Arg Asn Lys Glu Val Lys Lys Ala Val Leu Lys Leu Arg Asp Lys
 290 295 300
 Val Ala His Ser Gln Gly Glu
 305 310

<210> 284
 <211> 936
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (756)..(757)
 <223> A, T, C or G

<400> 284
 atgtccaaga ccagcctcgt gacagcggtc atcctcacgg gccttcccca tgccccaggg 60
 ctggagcggc cactcttttg aatcttctcg gtgggttacg tgctcactgt gctggggaac 120
 ctctcatcc tgctggtgat cagggtggat tctcacctcc acacccccat gtactacttc 180
 ctcaccaacc tgtccttcat tgacatgtgg ttctccactg tcacggtgcc caaaatgctg 240
 atgaccttgg tgtccccaag cggcagggct atctccttcc acagctgcgt ggctcagctc 300

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tattttttcc acttcctggg gagcaccgag tgtttcctct acacagtcac gtcctatgat 360
cgctacttgg ccatcagtta cccgctcagg tacaccagca tgatgagtgg gagcagatgt 420
gccctcctgg ccaccagcac ttggctcagt ggctctctgc actctgctgt ccagaccata 480
ttgactttcc atttgccta ctgtggaccc aaccagatcc agcactattt gtgtgatgca 540
ccgcccaccc tgaaactggc ctgtgcagac acctcagcca acgagatggg catctttgtg 600
gacattgggc tagtggcctc gggctgcttt ctctgatag tgctgtctta tgtgtccatc 660
gtctgttcca tcctgcggat ccacacctca gaggggaggc acagagcctt tcagacctgt 720
gcctcccact gcacgtggg cctttgcttt tttgtnnct gtgttttcat ttacctgaga 780
ccaggctcca gggacgtcgt ggatggagtt gtggccatctt tctacactgt gctgacaccc 840
cttctcaacc ctgttggtga caccctgaga aacaaggagg tgaagaaagc tgtgttgaaa 900
ctgagagaca aagtagcaca ttctcaggga gaataa 936

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<210> 285
<211> 331
<212> PRT
<213> Homo sapiens

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<220>
<221> MOD_RES
<222> (253)
<223> Variable amino acid

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<400> 285
Met Cys Trp Ala Met Pro Ser Pro Phe Thr Gly Ser Ser Thr Arg Asn
 1             5             10             15

Met Glu Ser Arg Asn Gln Ser Thr Val Thr Glu Phe Ile Phe Thr Gly
      20             25             30

Phe Pro Gln Leu Gln Asp Gly Ser Leu Leu Tyr Phe Phe Pro Leu Leu
      35             40             45

Phe Ile Tyr Thr Phe Ile Ile Ile Asp Asn Leu Leu Ile Phe Ser Ala
      50             55             60

Val Arg Leu Asp Thr His Leu Gly Asn Pro Met Tyr Asn Phe Ile Ser
      65             70             75             80

Ile Phe Ser Phe Leu Glu Ile Trp Tyr Thr Thr Ala Thr Ile Pro Lys
      85             90             95

Met Leu Ser Asn Leu Ile Ser Glu Lys Lys Ala Ile Ser Met Thr Gly
      100            105            110

Cys Ile Leu Gln Met Tyr Phe Phe His Ser Leu Glu Asn Ser Glu Gly
      115            120            125

Ile Leu Leu Thr Thr Met Ala Ile Asp Arg Tyr Val Ala Ile Cys Asn
      130            135            140

Pro Leu Arg Tyr Gln Met Ile Met Thr Pro Arg Leu Cys Ala His Leu
      145            150            155            160

Ser Ala Gly Ser Cys Leu Phe Gly Phe Leu Ile Leu Leu Pro Glu Ile
      165            170            175

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Val Met Ile Ser Thr Leu Pro Phe Cys Gly Pro Asn Gln Ile His Gln
180 185 190

Ile Phe Cys Asp Leu Val Pro Val Leu Ser Leu Ala Cys Thr Asp Thr
195 200 205

Ser Met Ile Leu Ile Glu Asp Val Ile His Ala Val Thr Ile Ile Ile
210 215 220

Thr Phe Leu Ile Ile Ala Leu Ser Tyr Val Arg Ile Val Thr Val Ile
225 230 235 240

Leu Arg Ile Pro Ser Ser Glu Gly Arg Gln Lys Ala Xaa Ser Thr Cys
245 250 255

Ala Gly His Leu Met Val Phe Leu Ile Phe Phe Gly Ser Val Ser Leu
260 265 270

Met Tyr Leu Arg Phe Ser Asn Thr Tyr Pro Pro Val Leu Asp Thr Ala
275 280 285

Ile Ala Leu Met Phe Thr Val Leu Ala Pro Phe Phe Asn Pro Ile Ile
290 295 300

Tyr Ser Leu Arg Asn Lys Asp Met Asn Asn Ala Ile Lys Lys Leu Phe
305 310 315 320

Cys Leu Gln Lys Val Leu Asn Lys Pro Gly Gly
325 330

<210> 286
<211> 996
<212> DNA
<213> Homo sapiens

<220>
<221> modified_base
<222> (757)
<223> A, T, C or G

<400> 286
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aaccaatcaa cagtgactga atttatcttc actggattcc ctcagcttca ggatggtagt 120
ctcctgtact tctttccttt acttttcatc tatactttta ttatcattga taacttatta 180
atctttctctg ctgtaaggct ggacacccat ctgggcaacc ccatgtataa ttttatcagt 240
atattttcct ttctggagat ctggtacacc acagccacca ttccaagat gctctccaac 300
ctcatcagtg aaaagaaggc catctcaatg actggctgca tcttgcatga gtatttcttc 360
cactcacttg aaaactcaga ggggatcttg ctgaccacca tggccattga cagatacgtt 420
gccatctgca accctcttcg ctatcaaata atcatgaccc cccggctctg tgctcacctc 480
tctgcagggt cctgctcttc cggtttcttc atcctgcttc ccgagattgt gatgatttcc 540
acactgcctt tctgtgggcc caaccaaata catcagatct tctgtgactt ggtccctgtg 600
ctaagcctgg cctgtacaga cacgtccatg attctgattg aggatgtgat tcatgctgtg 660
accatcatca ttaccttctt aatcattgcc ctgtcctatg taagaattgt cactgtgata 720
ttgaggattc cctcttctga agggaggcaa aaggctnttt ctacctgtgc aggccacctc 780
atggtcttcc tgatattctt tggcagtgtg tcatcctatg acttgcgttt cagcaacact 840
tatccaccag ttttggacac agccattgca ctgatgttta ctgtacttgc tccattcttc 900

aatcccatca tttatagcct gagaaacaag gacatgaaca atgcaattaa aaaactgttc 960
 tgtcttcaaa aagtgttgaa caagcctgga gggttaa 996

<210> 287
 <211> 308
 <212> PRT
 <213> Homo sapiens

<400> 287
 Met Ala Met Asp Asn Val Thr Ala Val Phe Gln Phe Leu Leu Ile Gly
 1 5 10 15
 Ile Ser Asn Tyr Pro Gln Trp Arg Asp Thr Phe Phe Thr Leu Val Leu
 20 25 30
 Ile Ile Tyr Leu Ser Thr Leu Leu Gly Asn Gly Phe Met Ile Phe Leu
 35 40 45
 Ile His Phe Asp Pro Asn Leu His Thr Pro Ile Tyr Phe Phe Leu Ser
 50 55 60
 Asn Leu Ser Phe Leu Asp Leu Cys Tyr Gly Thr Ala Ser Met Pro Gln
 65 70 75 80
 Ala Leu Val His Cys Phe Ser Thr His Pro Tyr Leu Ser Tyr Pro Arg
 85 90 95
 Cys Leu Ala Gln Thr Ser Val Ser Leu Ala Leu Ala Thr Ala Glu Cys
 100 105 110
 Leu Leu Leu Ala Ala Met Ala Tyr Asp Arg Val Val Ala Ile Ser Asn
 115 120 125
 Pro Leu Arg Tyr Ser Val Val Met Asn Gly Pro Val Cys Val Cys Leu
 130 135 140
 Val Ala Thr Ser Trp Gly Thr Ser Leu Val Leu Thr Ala Met Leu Ile
 145 150 155 160
 Leu Ser Leu Arg Leu His Phe Cys Gly Ala Asn Val Ile Asn His Phe
 165 170 175
 Ala Cys Glu Ile Leu Ser Leu Ile Lys Leu Thr Cys Ser Asp Thr Ser
 180 185 190
 Leu Asn Glu Phe Met Ile Leu Ile Thr Ser Ile Phe Thr Leu Leu Leu
 195 200 205
 Pro Phe Gly Phe Val Leu Leu Ser Tyr Ile Arg Ile Ala Met Ala Ile
 210 215 220
 Ile Arg Ile Arg Ser Leu Gln Gly Arg Leu Lys Ala Phe Thr Thr Cys
 225 230 235 240
 Gly Ser His Leu Thr Val Val Thr Ile Phe Tyr Gly Ser Ala Ile Ser
 245 250 255

Met Tyr Met Lys Thr Gln Ser Lys Ser Ser Pro Asp Gln Asp Lys Phe
260 265 270

Ile Ser Val Phe Tyr Gly Ala Leu Thr Pro Met Leu Asn Pro Leu Ile
275 280 285

Tyr Ser Leu Arg Lys Lys Asp Val Lys Arg Ala Ile Arg Lys Val Met
290 295 300

Leu Lys Arg Thr
305

<210> 288
<211> 927
<212> DNA
<213> Homo sapiens

<400> 288
atggccatgg acaatgtcac agcagtggtt cagtttctcc ttattggcat ttctaactat 60
cctcaatgga gagacacgtt tttcacatta gtgctgataa tttacctcag cacattgttg 120
gggaatggat ttatgatctt tcttattcac tttgacccca acctccacac tccaatctac 180
ttcttcctta gtaacctgtc tttcttagac ctttgttatg gaacagcttc catgccccag 240
gctttggtgc attgtttctc taccatccc tacctctctt atccccgatg tttggctcaa 300
acgagtgtct ccttggtctt ggccacagca gagtgcctcc tactggctgc catggcctat 360
gaccgtgtgg ttgctatcag caatccccctg cgttattcag tggttatgaa tggcccagtg 420
tgtgtctgct tggttgctac ctcatggggg acatcacttg tgctcactgc catgctcatc 480
ctatccctga ggcttcactt ctgtggggct aatgtcatca accattttgc ctgtgagatt 540
ctctccctca ttaagctgac ctgttctgat accagcctca atgaatttat gatcctcatc 600
accagtatct tcacctgct gctaccattt ggggttggtc tcctctccta catacgaatt 660
gctatggcta tcataaggat tcgctcactc cagggcaggc tcaaggcctt taccacatgt 720
ggctctcacc tgaccgtggt gacaatcttc tatgggtcag ccactctccat gtatatgaaa 780
actcagtcca agtcctcccc tgaccaggac aagtttatct cagtgtttta tggagctttg 840
acacccatgt tgaacccct gatatatagc ctgagaaaaa aagatgttaa acgggcaata 900
aggaaaagtta tgttgaaaag gacatga 927

<210> 289
<211> 312
<212> PRT
<213> Homo sapiens

<400> 289
Met Lys Ala Gly Asn Phe Ser Asp Thr Pro Glu Phe Phe Leu Leu Gly
1 5 10 15

Leu Ser Gly Asp Pro Glu Leu Gln Pro Ile Leu Phe Met Leu Phe Leu
20 25 30

Ser Met Tyr Leu Ala Thr Met Leu Gly Asn Leu Leu Ile Ile Leu Ala
35 40 45

Val Asn Ser Asp Ser His Leu His Thr Pro Met Tyr Phe Leu Leu Ser
50 55 60

Ile Leu Ser Leu Val Asp Ile Cys Phe Thr Ser Thr Thr Met Pro Lys

65		70		75		80
Met Leu Val Asn Ile Gln Ala Gln Ala Gln Ser Ile Asn Tyr Thr Gly	85		90		95	
Cys Leu Thr Gln Ile Cys Phe Val Leu Val Phe Val Gly Leu Glu Asn	100		105		110	
Gly Ile Leu Val Met Met Ala Tyr Asp Arg Phe Val Ala Ile Cys His	115		120		125	
Pro Leu Arg Tyr Asn Val Ile Met Asn Pro Lys Leu Cys Gly Leu Leu	130		135		140	
Leu Leu Leu Ser Phe Ile Val Ser Val Leu Asp Ala Leu Leu His Thr	145		150		155	160
Leu Met Val Leu Gln Leu Thr Phe Cys Ile Asp Leu Glu Ile Pro His	165		170		175	
Phe Phe Cys Glu Leu Ala His Ile Leu Lys Leu Ala Cys Ser Asp Val	180		185		190	
Leu Ile Asn Asn Ile Leu Val Tyr Leu Val Thr Ser Leu Leu Gly Val	195		200		205	
Val Pro Leu Ser Gly Ile Ile Phe Ser Tyr Thr Arg Ile Val Ser Ser	210		215		220	
Val Met Lys Ile Pro Ser Ala Gly Gly Lys Tyr Lys Ala Phe Ser Ile	225		230		235	240
Cys Gly Ser His Leu Ile Val Val Ser Leu Phe Tyr Gly Thr Gly Phe	245		250		255	
Gly Val Tyr Leu Ser Ser Gly Ala Thr His Ser Ser Arg Lys Gly Ala	260		265		270	
Ile Ala Ser Val Met Tyr Thr Val Val Thr Pro Met Leu Asn Pro Leu	275		280		285	
Ile Tyr Ser Leu Arg Asn Lys Asp Met Leu Lys Ala Leu Arg Lys Leu	290		295		300	
Ile Ser Arg Ile Pro Ser Phe His	305		310			

<210> 290

<211> 939

<212> DNA

<213> Homo sapiens

<400> 290

atgaaagcag gaaacttctc agacactcca gaattctttc tcttgggatt gtcaggggat 60
 ccggagctgc agcccatcct cttcatgctg ttctgtcca tgtacctggc cacaatgctg 120
 gggaacctgc tcatcatcct ggccgtcaac tctgactccc acctccacac ccccatgtac 180

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ttcctcctct ctatcctgtc cttgggtcgac atctgtttca cctccaccac gatgcccaag 240
atgctgggtga acatccaggc acagggtcaa tccatcaatt acacaggctg cctcacccaa 300
atctgctttg tcctggtttt tgttggttg gaaaatggaa ttctgggtcat gatggcctat 360
gatcgatttg tggccatctg tcacccactg aggtacaatg tcatcatgaa ccccaaactc 420
tgtgggctgc tgcttctgct gtccttcate gttagtgtcc tggatgctct gctgcacacg 480
ttgatgggtg tacagctgac cttctgcata gacctggaaa ttccccactt tttctgtgaa 540
ctagctcata ttctcaagct cgcctgttct gatgtcctca tcaataacat cctgggtgat 600
ttggtgacca gcctgttagg tgttggttct ctctctggga tcattttctc ttacacacga 660
attgtctcct ctgtcatgaa aattccatca gctgggtggaa agtataaagc tttttccatc 720
tgcggggtcac atttaatcgt tgtttccttg ttttatggaa cagggtttgg ggtgtacct 780
agttctgggg ctaccactc ctccaggaag ggtgcaatag catcagtgat gtataccgtg 840
gtcaccccca tgctgaacct actcatttac agcctgagaa acaaggacat gttgaaggct 900
ttgaggaaac taatatctag gataccatct ttccattga 939

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<210> 291

<211> 311

<212> PRT

<213> Homo sapiens

<400> 291

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Met Gly Pro Arg Asn Gln Thr Ala Val Ser Glu Phe Leu Leu Met Lys
  1             5             10             15

Val Thr Glu Asp Pro Glu Leu Lys Leu Ile Pro Phe Ser Leu Phe Leu
      20             25             30

Ser Met Tyr Leu Val Thr Ile Leu Gly Asn Leu Leu Ile Leu Leu Ala
      35             40             45

Val Ile Ser Asp Ser His Leu His Thr Pro Met Tyr Phe Leu Leu Phe
      50             55             60

Asn Leu Ser Phe Thr Asp Ile Cys Leu Thr Thr Thr Thr Val Pro Lys
      65             70             75             80

Ile Leu Val Asn Ile Gln Ala Gln Asn Gln Ser Ile Thr Tyr Thr Gly
      85             90             95

Cys Leu Thr Gln Ile Cys Leu Val Leu Val Phe Ala Gly Leu Glu Ser
      100            105            110

Cys Phe Leu Ala Val Met Ala Tyr Asp Arg Tyr Val Ala Ile Cys His
      115            120            125

Pro Leu Arg Tyr Thr Val Leu Met Asn Val His Phe Trp Gly Leu Leu
      130            135            140

Ile Leu Leu Ser Met Phe Met Ser Thr Met Asp Ala Leu Val Gln Ser
      145            150            155            160

Leu Met Val Leu Gln Leu Ser Phe Cys Lys Asn Val Glu Ile Pro Leu
      165            170            175

Phe Phe Cys Glu Val Val Gln Val Ile Lys Leu Ala Cys Ser Asp Thr
      180            185            190

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Leu Ile Asn Asn Ile Leu Ile Tyr Phe Ala Ser Ser Val Phe Gly Ala
 195 200 205
 Ile Pro Leu Ser Gly Ile Ile Phe Ser Tyr Ser Gln Ile Val Thr Ser
 210 215 220
 Val Leu Arg Met Pro Ser Ala Arg Gly Lys Tyr Lys Ala Phe Ser Thr
 225 230 235 240
 Cys Gly Cys His Leu Ser Val Phe Ser Leu Phe Tyr Gly Thr Ala Phe
 245 250 255
 Gly Val Tyr Ile Ser Ser Ala Val Ala Glu Ser Ser Arg Ile Thr Ala
 260 265 270
 Val Ala Ser Val Met Tyr Thr Val Val Pro Gln Met Met Asn Pro Phe
 275 280 285
 Ile Tyr Ser Leu Arg Asn Lys Glu Met Lys Lys Ala Leu Arg Lys Leu
 290 295 300
 Ile Gly Arg Leu Phe Pro Phe
 305 310

<210> 292
 <211> 936
 <212> DNA
 <213> Homo sapiens

<400> 292
 atgggaccca gaaaccaaac agctgtttca gaatttcttc tcatgaaagt gacagaggac 60
 ccagaactga agttaatccc ttccagcctg ttccctgtcca tgtacctggt caccatcctg 120
 gggaacctgc tcattctcct ggctgtcatc tctgactccc acctccacac ccccatgtac 180
 ttcccttctct ttaatctctc ctttactgac atctgtttta ccacaaccac agtcccaaag 240
 atcctagtga acatccaagc tcagaatcag agtatcactt acacaggctg cctcaccag 300
 atctgtcttg tcttggtttt tgctggcttg gaaagttgct ttcttgagc catggcctac 360
 gaccgctatg tggccatttg ccaccactg aggtacacag tcctcatgaa tgtccatttc 420
 tggggcttgc tgattcttct ctccatgttc atgagcacta tggatgccct ggttcagagt 480
 ctgatgggat tgcagctgtc cttctgcaaa aacgttgaaa tccctttgtt cttctgtgaa 540
 gtcgttcagg tcatcaagct cgctgttct gacaccctca tcaacaacat cctcatatat 600
 tttgcaagta gtgtatttgg tgcaattcct ctctctggaa taattttctc ttattctcaa 660
 atagtcacct ctgttctgag aatgccatca gcaagaggaa agtataaagc gttttccacc 720
 tgtggctgtc acctctctgt tttttccttg ttctatggga cagcttttgg ggtgtacatt 780
 agttctgctg ttgctgagtc ttcccgaatt actgctgtgg cttcagtgat gtacactgtg 840
 gtccctcaaa tgatgaacc cttcatctac agcctgagaa ataaggagat gaagaaagct 900
 ttgaggaaac ttattggtag gctgtttcct ttttag 936

<210> 293
 <211> 345
 <212> PRT
 <213> Homo sapiens

<400> 293
 Met Pro Met Gln Leu Leu Leu Thr Asp Phe Ile Ile Phe Ser Ile Arg
 1 5 10 15

Phe Ile Ile Asn Ser Met Glu Ala Arg Asn Gln Thr Ala Ile Ser Lys
 20 25 30

Phe Leu Leu Leu Gly Leu Ile Glu Asp Pro Glu Leu Gln Pro Val Leu
 35 40 45

Phe Ser Leu Phe Leu Ser Met Tyr Leu Val Thr Ile Leu Gly Asn Leu
 50 55 60

Leu Ile Leu Leu Ala Val Ile Ser Asp Ser His Leu His Thr Pro Met
 65 70 75 80

Tyr Phe Phe Leu Ser Asn Leu Ser Phe Leu Asp Ile Cys Leu Ser Thr
 85 90 95

Thr Thr Ile Pro Lys Met Leu Val Asn Ile Gln Ala Gln Asn Arg Ser
 100 105 110

Ile Thr Tyr Ser Gly Cys Leu Thr Gln Ile Cys Phe Val Leu Phe Phe
 115 120 125

Ala Gly Leu Glu Asn Cys Leu Leu Ala Ala Met Ala Tyr Asp Arg Tyr
 130 135 140

Val Ala Ile Cys His Pro Leu Arg Tyr Thr Val Ile Met Asn Pro Arg
 145 150 155 160

Leu Cys Gly Leu Leu Ile Leu Leu Ser Leu Leu Thr Ser Val Val Asn
 165 170 175

Ala Leu Leu Leu Ser Leu Met Val Leu Arg Leu Ser Phe Cys Thr Asp
 180 185 190

Leu Glu Ile Pro Leu Phe Phe Cys Glu Leu Ala Gln Val Ile Gln Leu
 195 200 205

Thr Cys Ser Asp Thr Leu Ile Asn Asn Ile Leu Ile Tyr Phe Ala Ala
 210 215 220

Cys Ile Phe Gly Gly Val Pro Leu Ser Gly Ile Ile Leu Ser Tyr Thr
 225 230 235 240

Gln Ile Thr Ser Cys Val Leu Arg Met Pro Ser Ala Ser Gly Lys His
 245 250 255

Lys Ala Val Ser Thr Cys Gly Ser His Leu Ser Ile Val Leu Leu Phe
 260 265 270

Tyr Gly Ala Gly Leu Gly Val Tyr Ile Ser Ser Val Val Thr Asp Ser
 275 280 285

Pro Arg Lys Thr Ala Val Ala Ser Val Met Tyr Ser Val Phe Pro Gln
 290 295 300

Met Val Asn Pro Phe Ile Tyr Ser Leu Arg Asn Lys Asp Met Lys Gly
 305 310 315 320

Thr Leu Arg Lys Phe Ile Gly Arg Ile Pro Ser Leu Leu Trp Cys Ala
 325 330 335

Ile Cys Phe Gly Phe Arg Phe Leu Glu
 340 345

<210> 294
 <211> 1038
 <212> DNA
 <213> Homo sapiens

<400> 294
 atgccgatgc agctgctgct tacagatttt attatctttt ccatcagatt catcatcaac 60
 agcatggaag cgagaaacca aacagctatt tcaaaattcc ttctcctggg actgatagag 120
 gatccggaac tgcagcccgt cctttttcagc ctgttcctgt ccatgtactt ggtcaccatc 180
 ctgggggaacc tgctcatcct cttggctgtc atctctgact ctcacctcca caccctcatg 240
 tacttcttcc tctccaatct ctcttttttg gacatttggt taagcacaac cactgatcca 300
 aagatgctgg tgaacatcca agctcagaat cggagcatca cgtactcagg ctgcctcacc 360
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 cagatcacct cctgtgtttt gagaatgcca tcagcaagtg gaaagcacia agcagtttcc 780
 acctgtgggt ctcacctctc cattgttctc ttgttctatg gggcagggtt ggggggtgtac 840
 attagtcttg tggttactga ctcacctagg aagactgcag tggcttcagt gatgtattct 900
 gtgttccctc aaatgggtgaa cccctttatc tatagtctga ggaataagga catgaaagga 960
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<210> 295
 <211> 313
 <212> PRT
 <213> Homo sapiens

<400> 295
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 Leu Ser Glu Lys Pro Glu Gln Glu Thr Leu Leu Phe Ser Leu Phe Phe
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 Cys Met Tyr Leu Val Met Val Val Gly Asn Leu Leu Ile Ile Leu Ala
 35 40 45
 Ile Ser Ile Asp Ser His Leu His Thr Pro Met Tyr Phe Phe Leu Ala
 50 55 60
 Asn Leu Ser Leu Val Asp Phe Cys Leu Ala Thr Asn Thr Ile Pro Lys
 65 70 75 80
 Met Leu Val Ser Leu Gln Thr Gly Ser Lys Ala Ile Ser Tyr Pro Cys
 85 90 95

Cys Leu Ile Gln Met Tyr Phe Phe His Phe Phe Gly Ile Val Asp Ser
 100 105 110
 Val Ile Ile Ala Met Met Ala Tyr Asp Arg Phe Val Ala Ile Cys His
 115 120 125
 Pro Leu His Tyr Ala Lys Ile Met Ser Leu Arg Leu Cys Arg Leu Leu
 130 135 140
 Val Gly Ala Leu Trp Ala Phe Ser Cys Phe Ile Ser Leu Thr His Ile
 145 150 155 160
 Leu Leu Met Ala Arg Leu Val Phe Cys Gly Ser His Glu Val Pro His
 165 170 175
 Tyr Phe Cys Asp Leu Thr Pro Ile Leu Arg Leu Ser Cys Thr Asp Thr
 180 185 190
 Ser Val Asn Arg Ile Phe Ile Leu Ile Val Ala Gly Met Val Ile Ala
 195 200 205
 Thr Pro Phe Val Cys Ile Leu Ala Ser Tyr Ala Arg Ile Leu Val Ala
 210 215 220
 Ile Met Lys Val Pro Ser Ala Gly Gly Arg Lys Lys Ala Phe Ser Thr
 225 230 235 240
 Cys Ser Ser His Leu Ser Val Val Ala Leu Phe Tyr Gly Thr Thr Ile
 245 250 255
 Gly Val Tyr Leu Cys Pro Ser Ser Val Leu Thr Thr Val Lys Glu Lys
 260 265 270
 Ala Ser Ala Val Met Tyr Thr Ala Val Thr Pro Met Leu Asn Pro Phe
 275 280 285
 Ile Tyr Ser Leu Arg Asn Arg Asp Leu Lys Gly Ala Leu Arg Lys Leu
 290 295 300
 Val Asn Arg Lys Ile Thr Ser Ser Ser
 305 310

<210> 296

<211> 942

<212> DNA

<213> Homo sapiens

<400> 296

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 gggaaacctgc tcatcatcct ggccatcagc atagactccc acctccacac ccccatgtac 180
 ttcttccctgg ccaacctgtc cctgggtgat ttctgtctgg ccaccaacac catccctaag 240
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 atgtacttct tccatttctt tggcatcgtg gacagcgtca taatcgccat gatggcttat 360
 gaccgggttcg tggccatctg ccaccatttg cactacgcca agatcatgag cctacgcctc 420

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ctcactccca tcctccgact ttcgtgcacg gacacctctg tgaataggat cttcatcctc 600
attgtggcag ggatgggtgat agccacgccc tttgtctgca tcctggcctc ctatgctcgc 660
atccttgtgg ccatcatgaa ggtccccctc gcaggcggca ggaagaaagc cttctccacc 720
tgcagctccc acctgtctgt ggttgccttc ttctatggga ccaccattgg cgtctatctg 780
tgtccctcct cggtcctcac cactgtgaag gagaaagctt ctgcggtgat gtacacagca 840
gtcaccacca tgctgaatcc cttcatctac agcttgagga acagagacct gaaaggggct 900
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<210> 297

<211> 317

<212> PRT

<213> Homo sapiens

<400> 297

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Met Met Arg Leu Met Lys Glu Val Arg Gly Arg Asn Gln Thr Glu Val
  1             5             10             15

Thr Glu Phe Leu Leu Leu Gly Leu Ser Asp Asn Pro Asp Leu Gln Gly
      20             25             30

Val Leu Phe Ala Leu Phe Leu Leu Ile Tyr Met Ala Asn Met Val Gly
      35             40             45

Asn Leu Gly Met Ile Val Leu Ile Lys Ile Asp Leu Cys Leu His Thr
      50             55             60

Pro Met Tyr Phe Phe Leu Ser Ser Leu Ser Phe Val Asp Ala Ser Tyr
      65             70             75             80

Ser Ser Ser Val Thr Pro Lys Met Leu Val Asn Leu Met Ala Glu Asn
      85             90             95

Lys Ala Ile Ser Phe His Gly Cys Ala Ala Gln Phe Tyr Phe Phe Gly
      100            105            110

Ser Phe Leu Gly Thr Glu Cys Phe Leu Leu Ala Met Met Ala Tyr Asp
      115            120            125

Arg Tyr Ala Ala Ile Trp Asn Pro Leu Leu Tyr Pro Val Leu Val Ser
      130            135            140

Gly Arg Ile Cys Phe Leu Leu Ile Ala Thr Ser Phe Leu Ala Gly Cys
      145            150            155            160

Gly Asn Ala Ala Ile His Thr Gly Met Thr Phe Arg Leu Ser Phe Cys
      165            170            175

Gly Ser Asn Arg Ile Asn His Phe Tyr Cys Asp Thr Pro Pro Leu Leu
      180            185            190

Lys Leu Ser Cys Ser Asp Thr His Phe Asn Gly Ile Val Ile Met Ala
      195            200            205

Phe Ser Ser Phe Ile Val Ile Ser Cys Val Met Ile Val Leu Ile Ser

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210	215	220
Tyr Leu Cys Ile Phe Ile Ala Val Leu Lys Met Pro Ser Leu Glu Gly		
225	230	235 240
Arg His Lys Ala Phe Ser Thr Cys Ala Ser Tyr Leu Met Ala Val Thr		
	245	250 255
Ile Phe Phe Gly Thr Ile Leu Phe Met Tyr Leu Arg Pro Thr Ser Ser		
	260	265 270
Tyr Ser Met Glu Gln Asp Lys Val Val Ser Val Phe Tyr Thr Val Ile		
	275	280 285
Ile Pro Val Leu Asn Pro Leu Ile Tyr Ser Leu Lys Asn Lys Asp Val		
	290	295 300
Lys Lys Ala Leu Lys Lys Ile Leu Trp Lys His Ile Leu		
305	310	315

<210> 298
 <211> 954
 <212> DNA
 <213> Homo sapiens

<400> 298

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atctatatgg	caaacatggt	gggcaatttg	gggatgattg	tattgattaa	gattgatctc	180
tgtctccaca	cccccatgta	tttctttctc	agtagcctct	cttttgtaga	tgctctttac	240
tcttcttccg	tacttcccaa	gatgctggtg	aacctcatgg	ctgagaataa	ggccattttct	300
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ctgttgggcca	tgatggcata	tgaccgctat	gcagccattt	ggaaccccct	gctctaccca	420
gttctcgtgt	ctgggagaat	ttgctttttg	ctaatagcta	cctccttctt	agcagggttg	480
ggaaatgcag	ccatacatac	agggatgact	tttaggttgt	ccttttgtag	ttctaataagg	540
atcaaccatt	tctactgtga	caccccgcca	ctgctcaaac	tctcttgctc	tgatacccac	600
ttcaatggca	ttgtgatcat	ggcattctca	agttttattg	tcacagctg	tgttatgatt	660
gtcctcattt	cctacctgtg	tatcttcatt	gccgtcttga	agatgccttc	gtagaggggc	720
aggcacaaaag	ccttctccac	ctgtgcctct	tacctcatgg	ctgtcaccat	attctttgga	780
acaatcctct	tcatgtactt	gcgccctaca	tctagctact	caatggagca	agacaagggt	840
gtctctgtct	tttatacagt	aataatccct	gtgctaaatc	ccctcatcta	tagtttaaaa	900
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<210> 299
 <211> 305
 <212> PRT
 <213> Homo sapiens

<400> 299

Met	Gln	Arg	Ser	Asn	His	Thr	Val	Thr	Glu	Phe	Ile	Leu	Leu	Gly	Phe
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Thr	Thr	Asp	Pro	Gly	Met	Gln	Leu	Gly	Leu	Phe	Val	Val	Phe	Leu	Gly
			20					25					30		

Val	Tyr	Ser	Leu	Thr	Val	Val	Gly	Asn	Ser	Thr	Leu	Ile	Val	Leu	Ile	35	40	45
Cys	Asn	Asp	Ser	Cys	Leu	His	Thr	Pro	Met	Tyr	Phe	Phe	Thr	Gly	Asn	50	55	60
Leu	Ser	Phe	Leu	Asp	Leu	Trp	Tyr	Ser	Ser	Val	Tyr	Thr	Pro	Lys	Ile	65	70	75
Leu	Val	Thr	Cys	Ile	Ser	Glu	Asp	Lys	Ser	Ile	Ser	Phe	Ala	Gly	Cys	85	90	95
Leu	Cys	Gln	Phe	Phe	Phe	Ser	Ala	Gly	Leu	Ala	Tyr	Ser	Glu	Cys	Tyr	100	105	110
Leu	Leu	Ala	Ala	Val	Ala	Tyr	Asp	Arg	Tyr	Val	Ala	Ile	Ser	Lys	Pro	115	120	125
Leu	Leu	Tyr	Ala	Gln	Ala	Met	Ser	Ile	Lys	Leu	Cys	Ala	Leu	Leu	Val	130	135	140
Ala	Val	Ser	Tyr	Cys	Gly	Gly	Phe	Ile	Asn	Ser	Ser	Ile	Ile	Thr	Lys	145	150	155
Lys	Thr	Phe	Ser	Phe	Asn	Phe	Cys	Arg	Glu	Asn	Ile	Ile	Asp	Asp	Phe	165	170	175
Phe	Cys	Asp	Leu	Leu	Pro	Leu	Val	Glu	Leu	Ala	Cys	Gly	Glu	Lys	Gly	180	185	190
Gly	Tyr	Lys	Ile	Met	Met	Tyr	Phe	Leu	Leu	Ala	Ser	Asn	Val	Ile	Cys	195	200	205
Pro	Ala	Val	Leu	Ile	Leu	Ala	Ser	Tyr	Leu	Phe	Ile	Ile	Thr	Ser	Val	210	215	220
Leu	Arg	Ile	Ser	Ser	Ser	Lys	Gly	Tyr	Leu	Lys	Ala	Phe	Ser	Thr	Cys	225	230	235
Ser	Ser	His	Leu	Thr	Ser	Val	Thr	Leu	Tyr	Tyr	Gly	Ser	Ile	Leu	Tyr	245	250	255
Ile	Tyr	Ala	Leu	Pro	Arg	Ser	Ser	Tyr	Ser	Phe	Asp	Met	Asp	Lys	Ile	260	265	270
Val	Ser	Thr	Phe	Tyr	Thr	Val	Val	Phe	Pro	Met	Leu	Asn	Leu	Met	Ile	275	280	285
Tyr	Ser	Leu	Arg	Asn	Lys	Asp	Val	Lys	Glu	Ala	Leu	Lys	Lys	Leu	Leu	290	295	300
Pro																305		

<210> 300
 <211> 918

<212> DNA

<213> Homo sapiens

<400> 300

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aatagcacc tcacgtgtgt gatctgtaat gactcctgcc tccacacacc catgtatttt 180
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<210> 301

<211> 328

<212> PRT

<213> Homo sapiens

<400> 301

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Met Phe Leu Thr Glu Arg Asn Thr Thr Ser Glu Ala Thr Phe Thr Leu
  1             5             10             15

Leu Gly Phe Ser Asp Tyr Leu Glu Leu Gln Ile Pro Leu Phe Phe Val
      20             25             30

Phe Leu Ala Val Tyr Gly Phe Ser Val Val Gly Asn Leu Gly Met Ile
      35             40             45

Val Ile Ile Lys Ile Asn Pro Lys Leu His Thr Pro Met Tyr Phe Phe
      50             55             60

Leu Asn His Leu Ser Phe Val Asp Phe Cys Tyr Ser Ser Ile Ile Ala
      65             70             75             80

Pro Met Met Leu Val Asn Leu Val Val Glu Asp Arg Thr Ile Ser Phe
      85             90             95

Ser Gly Cys Leu Val Gln Phe Phe Phe Phe Cys Thr Phe Val Val Thr
      100            105            110

Glu Leu Ile Leu Phe Ala Val Met Ala Tyr Asp His Phe Val Ala Ile
      115            120            125

Cys Asn Pro Leu Leu Tyr Thr Val Ala Ile Ser Gln Lys Leu Cys Ala
      130            135            140

Met Leu Val Val Val Leu Tyr Ala Trp Gly Val Ala Cys Ser Leu Thr
      145            150            155            160
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Leu Ala Cys Ser Ala Leu Lys Leu Ser Phe His Gly Phe Asn Thr Ile
 165 170 175
 Asn His Phe Phe Cys Glu Leu Ser Ser Leu Ile Ser Leu Ser Tyr Pro
 180 185 190
 Asp Ser Tyr Leu Ser Gln Leu Leu Leu Phe Thr Val Ala Thr Phe Asn
 195 200 205
 Glu Ile Ser Thr Leu Leu Ile Ile Leu Thr Ser Tyr Ala Phe Ile Ile
 210 215 220
 Val Thr Thr Leu Lys Met Pro Ser Ala Ser Gly His Arg Lys Val Phe
 225 230 235 240
 Ser Thr Cys Ala Ser His Leu Thr Ala Ile Thr Ile Phe His Gly Thr
 245 250 255
 Ile Leu Phe Leu Tyr Cys Val Pro Asn Ser Lys Asn Ser Arg His Thr
 260 265 270
 Val Lys Val Ala Ser Val Phe Tyr Thr Val Val Ile Pro Leu Leu Asn
 275 280 285
 Pro Leu Ile Tyr Ser Leu Arg Asn Lys Asp Val Lys Asp Ala Ile Arg
 290 295 300
 Lys Ile Ile Asn Thr Lys Tyr Phe His Ile Lys His Arg His Trp Tyr
 305 310 315 320
 Pro Phe Asn Phe Val Ile Glu Gln
 325

<210> 302
 <211> 987
 <212> DNA
 <213> Homo sapiens

<400> 302
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 gtggtaggga atcttgggat gatagtgatc atcaaaatta acccaaaatt gcataccccc 180
 atgtatTTTT tCctcaacca cctctccttt gtggatttct gctattcctc catcattgct 240
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 gtgcaattct ttttcttttg cacctttgta gtgactgaat taattctatt tgcggtgatg 360
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ccattttaatt ttgttattga acaataa

987

<210> 303

<211> 324

<212> PRT

<213> Homo sapiens

<400> 303

Met Ala Val Gly Arg Asn Asn Thr Ile Val Thr Lys Phe Ile Leu Leu
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Gly Leu Ser Asp His Pro Gln Met Lys Ile Phe Leu Phe Met Leu Phe
20 25 30

Leu Gly Leu Tyr Leu Leu Thr Leu Ala Trp Asn Leu Ser Leu Ile Ala
35 40 45

Leu Ile Lys Met Asp Ser His Leu His Met Pro Met Tyr Phe Phe Leu
50 55 60

Ser Asn Leu Ser Phe Leu Asp Ile Cys Tyr Val Ser Ser Thr Ala Pro
65 70 75 80

Lys Met Leu Ser Asp Ile Ile Thr Glu Gln Lys Thr Ile Ser Phe Val
85 90 95

Gly Cys Ala Thr Gln Tyr Phe Val Phe Cys Gly Met Gly Leu Thr Glu
100 105 110

Cys Phe Leu Leu Ala Ala Met Ala Tyr Asp Arg Tyr Ala Ala Ile Cys
115 120 125

Asn Pro Leu Leu Tyr Thr Val Leu Ile Ser His Thr Leu Cys Leu Lys
130 135 140

Met Val Val Gly Ala Tyr Val Gly Gly Phe Leu Ser Ser Phe Ile Glu
145 150 155 160

Thr Tyr Ser Val Tyr Gln His Asp Phe Cys Gly Pro Tyr Met Ile Asn
165 170 175

His Phe Phe Cys Asp Leu Pro Pro Val Leu Ala Leu Ser Cys Ser Asp
180 185 190

Thr Phe Thr Ser Glu Val Val Thr Phe Ile Val Ser Val Val Val Gly
195 200 205

Ile Val Ser Val Leu Val Val Leu Ile Ser Tyr Gly Tyr Ile Val Ala
210 215 220

Ala Val Val Lys Ile Ser Ser Ala Thr Gly Arg Thr Lys Ala Phe Ser
225 230 235 240

Thr Cys Ala Ser His Leu Thr Ala Val Thr Leu Phe Tyr Gly Ser Gly
245 250 255

Phe Phe Met Tyr Met Arg Pro Ser Ser Ser Tyr Ser Leu Asn Arg Asp
 260 265 270
 Lys Val Val Ser Ile Phe Tyr Ala Leu Val Ile Pro Val Val Asn Pro
 275 280 285
 Ile Ile Tyr Ser Phe Arg Asn Lys Glu Ile Lys Asn Ala Met Arg Lys
 290 295 300
 Ala Met Glu Arg Asp Pro Gly Ile Ser His Gly Gly Pro Phe Ile Phe
 305 310 315 320
 Met Thr Leu Gly

<210> 304
 <211> 975
 <212> DNA
 <213> Homo sapiens

<400> 304
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 gcctggaact taagcctcat tgccctcatt aagatggact ctcacctgca catgcccctg 180
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<210> 305
 <211> 311
 <212> PRT
 <213> Homo sapiens

<400> 305
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 20 25 30
 Leu Val Tyr Val Thr Thr Leu Leu Gly Asn Leu Leu Ile Met Val Thr
 35 40 45
 Val Thr Cys Glu Ser Arg Leu His Thr Pro Met Tyr Phe Leu Leu His

50					55					60					
Asn	Leu	Ser	Ile	Ala	Asp	Ile	Cys	Phe	Ser	Ser	Ile	Thr	Val	Pro	Lys
65					70					75					80
Val	Leu	Val	Asp	Leu	Leu	Ser	Glu	Arg	Lys	Thr	Ile	Ser	Phe	Asn	His
				85					90					95	
Cys	Phe	Thr	Gln	Met	Phe	Leu	Phe	His	Leu	Ile	Gly	Gly	Val	Asp	Val
			100					105					110		
Phe	Ser	Leu	Ser	Val	Met	Ala	Leu	Asp	Arg	Tyr	Val	Ala	Ile	Ser	Lys
		115					120					125			
Pro	Leu	His	Tyr	Ala	Thr	Ile	Met	Ser	Arg	Asp	His	Cys	Ile	Gly	Leu
		130					135					140			
Thr	Val	Ala	Ala	Trp	Leu	Gly	Gly	Phe	Val	His	Ser	Ile	Val	Gln	Ile
145						150					155				160
Ser	Leu	Leu	Leu	Pro	Leu	Pro	Phe	Cys	Gly	Pro	Asn	Val	Leu	Asp	Thr
				165					170					175	
Phe	Tyr	Cys	Asp	Val	His	Arg	Val	Leu	Lys	Leu	Ala	His	Thr	Asp	Ile
			180					185					190		
Phe	Ile	Leu	Glu	Leu	Leu	Met	Ile	Ser	Asn	Asn	Gly	Leu	Leu	Thr	Thr
		195					200					205			
Leu	Trp	Phe	Phe	Leu	Leu	Leu	Val	Ser	Tyr	Ile	Val	Ile	Leu	Ser	Leu
	210						215					220			
Pro	Lys	Ser	Gln	Ala	Gly	Glu	Gly	Arg	Arg	Lys	Ala	Ile	Ser	Thr	Cys
225						230					235				240
Thr	Ser	His	Ile	Thr	Val	Val	Thr	Leu	His	Phe	Val	Pro	Cys	Ile	Tyr
				245					250					255	
Val	Tyr	Ala	Arg	Pro	Phe	Thr	Ala	Leu	Pro	Met	Asp	Lys	Ala	Ile	Ser
			260					265					270		
Val	Thr	Phe	Thr	Val	Ile	Ser	Pro	Leu	Leu	Asn	Pro	Leu	Ile	Tyr	Thr
		275					280					285			
Leu	Arg	Asn	His	Glu	Met	Lys	Ser	Ala	Met	Arg	Arg	Leu	Lys	Arg	Arg
	290					295					300				
Leu	Val	Pro	Ser	Asp	Arg	Lys									
305						310									

<210> 306
 <211> 936
 <212> DNA
 <213> Homo sapiens

<400> 306

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cggaagtga gcttagtctt atttcttttc ctactcttgg tgtatgtgac aactttgctg 120
ggaaacctcc tcatcatggt cactgttacc tgtgaatctc gccttcacac gccatgtat 180
tttttgctcc ataatttata tattgccgat atctgcttct cttccatcac agtgcccaag 240
gttctggtgg accttctgtc tgaaagaaag accatctcct tcaatcattg cttcactcag 300
atgtttctat tccaccttat tggaggggtg gatgtatttt ctctttcggg gatggcattg 360
gatcgatatg tggccatctc caagcccctg cactatgcga ctatcatgag tagagaccat 420
tgcattgggc tcacagtggc tgccctgggtg gggggccttg tccactccat cgtgcagatt 480
tccctgttgc tcccactccc tttctgcgga cccaatgttc ttgacacttt ctactgtgat 540
gtccaccggg tcctcaaact ggcccatata gacattttca tacttgaact actaatgatt 600
tccaacaatg gactgctcac cacactgtgg tttttcctgc tcctgggtgc ctacatagtc 660
atattatcat tacccaagtc tcaggcagga gagggcagga ggaaagccat ctccactgc 720
acctcccaca tcactgtggt gacctgcat ttctgtgccct gcacttatgt ctatgcccg 780
cccttactg cctcccat ggataaggcc atctctgtca cttcactgt catctccct 840
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ctgaagagaa gacttgtgcc ttctgataga aaatag 936

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<210> 307

<211> 315

<212> PRT

<213> Homo sapiens

<400> 307

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Met Ser Ile Thr Lys Ala Trp Asn Ser Ser Ser Val Thr Met Phe Ile
  1              5              10              15

Leu Leu Gly Phe Thr Asp His Pro Glu Leu Gln Ala Leu Leu Phe Val
      20              25              30

Thr Phe Leu Gly Ile Tyr Leu Thr Thr Leu Ala Trp Asn Leu Ala Leu
  35              40              45

Ile Phe Leu Ile Arg Gly Asp Thr His Leu His Thr Pro Met Tyr Phe
  50              55              60

Phe Leu Ser Asn Leu Ser Phe Ile Asp Ile Cys Tyr Ser Ser Ala Val
  65              70              75              80

Ala Pro Asn Met Leu Thr Asp Phe Phe Trp Glu Gln Lys Thr Ile Ser
      85              90              95

Phe Val Gly Cys Ala Ala Gln Phe Phe Phe Phe Val Gly Met Gly Leu
      100              105              110

Ser Glu Cys Leu Leu Leu Thr Ala Met Ala Tyr Asp Arg Tyr Ala Ala
      115              120              125

Ile Ser Ser Pro Leu Leu Tyr Pro Thr Ile Met Thr Gln Gly Leu Cys
      130              135              140

Thr Arg Met Val Val Gly Ala Tyr Val Gly Gly Phe Leu Ser Ser Leu
      145              150              155              160

Ile Gln Ala Ser Ser Ile Phe Arg Leu His Phe Cys Gly Pro Asn Ile
      165              170              175

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Ile Asn His Phe Phe Cys Asp Leu Pro Pro Val Leu Ala Leu Ser Cys
 180 185 190
 Ser Asp Thr Phe Leu Ser Gln Val Val Asn Phe Leu Val Val Val Thr
 195 200 205
 Val Gly Gly Thr Ser Phe Leu Gln Leu Leu Ile Ser Tyr Gly Tyr Ile
 210 215 220
 Val Ser Ala Val Leu Lys Ile Pro Ser Ala Glu Gly Arg Trp Lys Ala
 225 230 235 240
 Cys Asn Thr Cys Ala Ser His Leu Met Val Val Thr Leu Leu Phe Gly
 245 250 255
 Thr Ala Leu Phe Val Tyr Leu Arg Pro Ser Ser Ser Tyr Leu Leu Gly
 260 265 270
 Arg Asp Lys Val Val Ser Val Phe Tyr Ser Leu Val Ile Pro Met Leu
 275 280 285
 Asn Pro Leu Ile Tyr Ser Leu Arg Asn Lys Glu Ile Lys Asp Ala Leu
 290 295 300
 Trp Lys Val Leu Glu Arg Lys Lys Val Phe Ser
 305 310 315

<210> 308
 <211> 948
 <212> DNA
 <213> Homo sapiens

<400> 308
 atgtccataa ccaaagcctg gaacagctca tcagtgacca tgttcatacct cctgggattc 60
 acagaccatc cagaactcca ggcctcctc tttgtgacct tcctgggcat ctatcttacc 120
 accctggcct ggaacctggc cctcattttt ctgatcagag gtgacaccca tctgcacaca 180
 cccatgtact tcttcctaag caacttatct ttcattgaca tctgctactc ttctgctgtg 240
 gctcccaata tgctcactga cttcttcttg gagcagaaga ccatatcatt tgtgggctgt 300
 gctgctcagt tttttttctt tgtcggcatg ggtctgtctg agtgcctcct cctgactgct 360
 atggcatacg accgatatgc agccatctcc agcccccttc tctacccac tatcatgacc 420
 cagggcctct gtacacgcat ggtggttggg gcatatgttg gtggcttctc gagctccctg 480
 atccaggcca gctccatatt taggcttcac ttttgcgag ccaacatcat caaccacttc 540
 ttctgcgacc tcccaccagt cctggctctg tcttgctctg acaccttcct cagtcaagtg 600
 gtgaatttcc tcgtggtggt cactgtcgga ggaacatcgt tcctccaact ccttatctcc 660
 tatggttaca tagtgtctgc ggtcctgaag atcccttcag cagagggccg atggaaagcc 720
 tgcaacacgt gtgcctcgca tctgatggtg gtgactctgc tgtttgggac agcccttttc 780
 gtgtacttgc gaccagctc cagctacttg ctaggcagg acaaggtggt gtctgttttc 840
 tattcatttg tgatcccat gctgaaccct ctcatttaca gtttgaggaa caaagagatc 900
 aaggatgccc tgtggaaggt gttggaaagg aagaaagtgt tttcttag 948

<210> 309
 <211> 311
 <212> PRT
 <213> Homo sapiens

<400> 309

Met	Glu	Lys	Ile	Asn	Asn	Val	Thr	Glu	Phe	Ile	Phe	Trp	Gly	Leu	Ser	
1				5					10					15		
Gln	Ser	Pro	Glu	Ile	Glu	Lys	Val	Cys	Phe	Val	Val	Phe	Ser	Phe	Phe	
			20					25					30			
Tyr	Ile	Ile	Ile	Leu	Leu	Gly	Asn	Leu	Leu	Ile	Met	Leu	Thr	Val	Cys	
		35					40					45				
Leu	Ser	Asn	Leu	Phe	Lys	Ser	Pro	Met	Tyr	Phe	Phe	Leu	Ser	Phe	Leu	
	50					55					60					
Ser	Phe	Val	Asp	Ile	Cys	Tyr	Ser	Ser	Val	Thr	Ala	Pro	Lys	Met	Ile	
	65				70					75					80	
Val	Asp	Leu	Leu	Ala	Lys	Asp	Lys	Thr	Ile	Ser	Tyr	Val	Gly	Cys	Met	
				85					90					95		
Leu	Gln	Leu	Leu	Gly	Val	His	Phe	Phe	Gly	Cys	Thr	Glu	Ile	Phe	Ile	
		100						105					110			
Leu	Thr	Val	Met	Ala	Tyr	Asp	Arg	Tyr	Val	Ala	Ile	Cys	Lys	Pro	Leu	
		115					120					125				
His	Tyr	Met	Thr	Ile	Met	Asn	Arg	Glu	Thr	Cys	Asn	Lys	Met	Leu	Leu	
	130					135					140					
Gly	Thr	Trp	Val	Gly	Gly	Phe	Leu	His	Ser	Ile	Ile	Gln	Val	Ala	Leu	
145				150						155					160	
Val	Val	Gln	Leu	Pro	Phe	Cys	Gly	Pro	Asn	Glu	Ile	Asp	His	Tyr	Phe	
			165						170					175		
Cys	Asp	Val	His	Pro	Val	Leu	Lys	Leu	Ala	Cys	Thr	Glu	Thr	Tyr	Ile	
		180						185					190			
Val	Gly	Val	Val	Val	Thr	Ala	Asn	Ser	Gly	Thr	Ile	Ala	Leu	Gly	Ser	
	195						200					205				
Phe	Val	Ile	Leu	Leu	Ile	Ser	Tyr	Ser	Ile	Ile	Leu	Val	Ser	Leu	Arg	
	210					215					220					
Lys	Gln	Ser	Ala	Glu	Gly	Arg	Arg	Lys	Ala	Leu	Ser	Thr	Cys	Gly	Ser	
225				230						235					240	
His	Ile	Ala	Met	Val	Val	Ile	Phe	Phe	Gly	Pro	Cys	Thr	Phe	Met	Tyr	
			245						250					255		
Met	Arg	Pro	Asp	Thr	Thr	Phe	Ser	Glu	Asp	Lys	Met	Val	Ala	Val	Phe	
		260						265					270			
Tyr	Thr	Ile	Ile	Thr	Pro	Met	Leu	Asn	Pro	Leu	Ile	Tyr	Thr	Leu	Arg	
	275					280						285				
Asn	Ala	Glu	Val	Lys	Asn	Ala	Met	Lys	Lys	Leu	Trp	Gly	Arg	Asn	Val	
	290					295					300					

Phe Leu Glu Ala Lys Gly Lys
305 310

<210> 310
<211> 936
<212> DNA
<213> Homo sapiens

<400> 310
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attgagaaaag tttgttttgt ggtgttttct ttctttctaca taatcattct tctgggaaat 120
ctcctcatca tgctgacagt ttgcctgagc aacctgttta agtcacccat gtattttcttt 180
ctcagcttct tgtcttttgt ggacatttgt tactcttcag tcacagctcc caagatgatt 240
gttgacctgt tagcaaagga caaaaccatc tcctatgtgg ggtgcatgtt gcaactgctt 300
ggagtacatt tcttttggtg cactgagatc ttcatcctta ctgtaatggc ctatgatcgt 360
tatgtgggcta tctgtaaacc cctacattat atgaccatca tgaaccggga gacatgcaat 420
aaaatgttat tagggacgtg ggtaggtggg ttcttacact ccattatcca agtggctctg 480
gtagtccaac tacccttttg tggacccaat gagatagatc actacttttg tgatgttcac 540
cctgtgttga aacttgccctg cacagaaaca tacattgttg gtgttggttg gacagccaac 600
agtgggtacca ttgctctggg gagttttggt atcttgctaa tctcctacag catcatccta 660
gtttccctga gaaagcagtc agcagaaggc aggcgcaaag ccctctccac ctgtggctcc 720
cacattgcca tggctggtat ctttttcggc ccctgtactt ttatgtacat gcgcctgat 780
acgacctttt cagaggataa gatgggtggc gtattttaca ccattatcac tcccatgtta 840
aatcctctga tttatacact gagaaatgca gaagtaaaga atgcaatgaa gaaactgtgg 900
ggcagaaaatg ttttcttgga ggctaaaggg aaatag 936

<210> 311
<211> 310
<212> PRT
<213> Homo sapiens

<400> 311
Met Met Asp Asn His Ser Ser Ala Thr Glu Phe His Leu Leu Gly Phe
1 5 10 15
Pro Gly Ser Gln Gly Leu His His Ile Leu Phe Ala Ile Phe Phe Phe
20 25 30
Phe Tyr Leu Val Thr Leu Met Gly Asn Thr Val Ile Ile Val Ile Val
35 40 45
Cys Val Asp Lys Arg Leu Gln Ser Pro Met Tyr Phe Phe Leu Ser His
50 55 60
Leu Ser Thr Leu Glu Ile Leu Val Thr Thr Ile Ile Val Pro Met Met
65 70 75 80
Leu Trp Gly Leu Leu Phe Leu Gly Cys Arg Gln Tyr Leu Ser Leu His
85 90 95
Val Ser Leu Asn Phe Ser Cys Gly Thr Met Glu Phe Ala Leu Leu Gly
100 105 110
Val Met Ala Val Asp Arg Tyr Val Ala Val Cys Asn Pro Leu Arg Tyr

115	120	125
Asn Ile Ile Met Asn Ser Ser Thr Cys Ile Trp Val Val Ile Val Ser 130 135 140		
Trp Val Phe Gly Phe Leu Ser Glu Ile Trp Pro Ile Tyr Ala Thr Phe 145 150 155 160		
Gln Phe Thr Phe Arg Lys Ser Asn Ser Leu Asp His Phe Tyr Cys Asp 165 170 175		
Arg Gly Gln Leu Leu Lys Leu Ser Cys Asp Asn Thr Leu Leu Thr Glu 180 185 190		
Phe Ile Leu Phe Leu Met Ala Val Phe Ile Leu Ile Gly Ser Leu Ile 195 200 205		
Pro Thr Ile Val Ser Tyr Thr Tyr Ile Ile Ser Thr Ile Leu Lys Ile 210 215 220		
Pro Ser Ala Ser Gly Arg Arg Lys Ala Phe Ser Thr Phe Ala Ser His 225 230 235 240		
Phe Thr Cys Val Val Ile Gly Tyr Gly Ser Cys Leu Phe Leu Tyr Val 245 250 255		
Lys Pro Lys Gln Thr Gln Gly Val Glu Tyr Asn Lys Ile Val Ser Leu 260 265 270		
Leu Val Ser Val Leu Thr Pro Phe Leu Asn Pro Phe Ile Phe Thr Leu 275 280 285		
Arg Asn Asp Lys Val Lys Glu Ala Leu Arg Asp Gly Met Lys Arg Cys 290 295 300		
Cys Gln Leu Leu Lys Asp 305 310		

<210> 312
 <211> 933
 <212> DNA
 <213> Homo sapiens

<400> 312
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 ggactacacc acattctttt tgctatatc tttttcttct atttagtgac attaatggga 120
 aacacgggtca tcattgtgat tgtctgtgtg gataaacgtc tgcagtcccc catgtatttc 180
 ttccctcagcc acctctctac cctggagatc ctgggtcacia ccataattgt ccccatgatg 240
 ctttgggggat tgctcttctt gggatgcaga cagtatcttt ctctacatgt atcgctcaac 300
 ttttctctgtg ggaccatgga gtttgcatta cttggagtga tggctgtgga ccgttatgtg 360
 gctgtgtgta accctttgag gtacaacatc attatgaaca gcagtacctg tatttgggtg 420
 gtaatagtgt catgggtgtt tggatttctt tctgaaatct ggcccatcta tgccacattt 480
 cagttttacct tccgcaaate aaattcatta gaccattttt actgtgaccg agggcaattg 540
 ctcaaactgt cctgcgataa cactcttctc acagagttta tccttttctt aatggctgtt 600
 tttattctca ttggttcttt gatccctacg attgtctcct acacctacat tatctccacc 660
 atcctcaaga tcccgtcagc ctctggccgg aggaagcct tctccacttt tgcctccacc 720

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ttcacctgtg ttgtgattgg ctatggcagc tgcttgtttc tctacgtgaa acccaagcaa 780
acacagggag ttgagtacaa taagatagtt tcctgttggt tttctgtgtt aacccccttc 840
ctgaatcctt tcattcttac tcttcggaat gacaaagtca aagaggccct ccgagatggg 900
atgaaacgct gctgtcaact cctgaaagat tag 933

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<210> 313
<211> 399
<212> PRT
<213> Homo sapiens

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<400> 313
Met Ser Phe Thr Ser Leu Ile Pro Ser Leu Cys Phe Ser Leu Thr Leu
  1              5              10              15

Pro Phe Leu Phe Cys Tyr Leu Ser Leu Leu Pro Phe Leu Ser Ala Phe
      20              25              30

Leu Phe Ile Thr Arg Trp Leu Leu Ala Phe Leu Ser Leu Phe Ser Val
      35              40              45

Ser Val Pro Val Ser Ser Val Ser Ser Ser Met Val Leu Cys Leu Tyr
      50              55              60

Leu Ser Val Ser Ala Ser Pro Ser Val Phe Cys Phe Ser Cys Met Gln
      65              70              75              80

Gly Pro Ile Leu Trp Ile Met Ala Asn Leu Ser Gln Pro Ser Glu Phe
      85              90              95

Val Leu Leu Gly Phe Ser Ser Phe Gly Glu Leu Gln Ala Leu Leu Tyr
      100             105             110

Gly Pro Phe Leu Met Leu Tyr Leu Leu Ala Phe Met Gly Asn Thr Ile
      115             120             125

Ile Ile Val Met Val Ile Ala Asp Thr His Leu His Thr Pro Met Tyr
      130             135             140

Phe Phe Leu Gly Asn Phe Ser Leu Leu Glu Ile Leu Val Thr Met Thr
      145             150             155             160

Ala Val Pro Arg Met Leu Ser Asp Leu Leu Val Pro His Lys Val Ile
      165             170             175

Thr Phe Thr Gly Cys Met Val Gln Phe Tyr Phe His Phe Ser Leu Gly
      180             185             190

Ser Thr Ser Phe Leu Ile Leu Thr Asp Met Ala Leu Asp Arg Phe Val
      195             200             205

Ala Ile Cys His Pro Leu Arg Tyr Gly Thr Leu Met Ser Arg Ala Met
      210             215             220

Cys Val Gln Leu Ala Gly Ala Ala Trp Ala Ala Pro Phe Leu Ala Met
      225             230             235             240

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<210> 315
 <211> 292
 <212> PRT
 <213> Homo sapiens

<400> 315
 Met Val Gly Asn Leu Leu Ile Trp Val Thr Thr Ile Gly Ser Pro Ser
 1 5 10 15
 Leu Gly Ser Leu Met Tyr Phe Phe Leu Ala Tyr Leu Ser Leu Met Asp
 20 25 30
 Ala Ile Tyr Ser Thr Ala Met Ser Pro Lys Leu Met Ile Asp Leu Leu
 35 40 45
 Cys Asp Lys Ile Ala Ile Ser Leu Ser Ala Cys Met Gly Gln Leu Phe
 50 55 60
 Ile Glu His Leu Leu Gly Gly Ala Glu Val Phe Leu Leu Val Val Met
 65 70 75 80
 Ala Tyr Asp Arg Tyr Val Ala Ile Ser Lys Pro Leu His Tyr Leu Asn
 85 90 95
 Ile Met Asn Arg Leu Val Cys Ile Leu Leu Leu Val Val Ala Met Ile
 100 105 110
 Gly Gly Phe Val His Ser Val Val Gln Ile Val Phe Leu Tyr Ser Leu
 115 120 125
 Pro Ile Cys Gly Pro Asn Val Ile Asp His Ser Val Cys Asp Met Tyr
 130 135 140
 Pro Leu Leu Glu Leu Leu Cys Leu Asp Thr Tyr Phe Ile Gly Leu Thr
 145 150 155 160
 Val Val Ala Asn Gly Gly Ile Ile Cys Met Val Ile Phe Thr Phe Leu
 165 170 175
 Leu Ile Ser Cys Gly Val Ile Leu Asn Phe Leu Lys Thr Tyr Ser Gln
 180 185 190
 Glu Glu Arg His Lys Ala Leu Pro Thr Cys Ile Ser His Ile Ile Val
 195 200 205
 Val Ala Leu Val Phe Val Pro Cys Ile Phe Met Tyr Val Arg Pro Val
 210 215 220
 Ser Asn Phe Pro Phe Asp Lys Leu Met Thr Val Phe Tyr Ser Ile Ile
 225 230 235 240
 Thr Leu Met Leu Asn Pro Leu Ile Tyr Ser Leu Arg Gln Ser Glu Met
 245 250 255
 Lys Asn Ala Met Lys Asn Leu Trp Cys Glu Lys Leu Ser Ile Val Arg

260 265 270
 Lys Arg Val Ser Pro Thr Leu Asn Ile Phe Ile Pro Ser Ser Lys Ala
 275 280 285
 Thr Asn Arg Arg
 290

 <210> 316
 <211> 879
 <212> DNA
 <213> Homo sapiens

 <400> 316
 atggtgggaa acctcctcat ttgggtgact actattggca gcccctcctt gggctcccta 60
 atgtacttct tccttgccca cttgtcactt atggatgcca tatattccac tgccatgtca 120
 cccaaattga tgatagactt actctgtgat aaaatcgcta tttccttgtc agcttgcag 180
 ggtcagctct tcatagaaca cttacttggg ggtgcagagg tcttcctttt ggtgggtgat 240
 gcctatgatc gctatgtggc tatctctaag ccgctgcact atttgaacat catgaatcga 300
 ctgggttgca tccttctgtt ggtgggtggc atgattggag gttttgtgca ctctgtggtt 360
 caaattgtct ttctgtacag tctaccaatc tgtggcccca atgttattga ccactctgtc 420
 tgtgacatgt acccattgtt ggaactgttg tgccttgaca cctactttat aggactcact 480
 gtggttgcca atgggtggaat aatttgtatg gtcactttta cctttctgct aatctcctgt 540
 ggagtcaccc taaacttcct taaaacttac agtcaggaag agaggcataa agccctgcct 600
 acctgcatct cccacatcat tgtgggtggc ctcggttttg ttcctgtgat ttttatgtat 660
 gttagacccg tttccaactt tccctttgat aaattaatga ctgtgtttta ttcaattatc 720
 acactcatgt tgaatccttt aatatactcg ttgagacaat cagagatgaa aaatgctatg 780
 aaaaatctct ggtgtgaaaa gttaagtata gttagaaaaa gagtatctcc cacactgaac 840
 atattttattc ctagttctaa ggcaacaaat aggcggtaa 879

 <210> 317
 <211> 320
 <212> PRT
 <213> Homo sapiens

 <400> 317
 Met Ala Glu Thr Leu Gln Leu Asn Ser Thr Phe Leu His Pro Asn Phe
 1 5 10 15
 Phe Ile Leu Thr Gly Phe Pro Gly Leu Gly Ser Ala Gln Thr Trp Leu
 20 25 30
 Thr Leu Val Phe Gly Pro Ile Tyr Leu Leu Ala Leu Leu Gly Asn Gly
 35 40 45
 Ala Leu Pro Ala Val Val Trp Ile Asp Ser Thr Leu His Gln Pro Met
 50 55 60
 Phe Leu Leu Leu Ala Ile Leu Ala Ala Thr Asp Leu Gly Leu Ala Thr
 65 70 75 80
 Ser Ile Ala Pro Gly Leu Leu Ala Val Leu Trp Leu Gly Pro Arg Ser
 85 90 95
 Val Pro Tyr Ala Val Cys Leu Val Gln Met Phe Phe Val His Ala Leu

100	105	110
Thr Ala Met Glu Ser Gly Val Leu Leu Ala Met Ala Cys Asp Arg Ala 115 120 125		
Ala Ala Ile Gly Arg Pro Leu His Tyr Pro Val Leu Val Thr Lys Ala 130 135 140		
Cys Val Gly Tyr Ala Ala Leu Ala Leu Ala Leu Lys Ala Val Ala Ile 145 150 155 160		
Val Val Pro Phe Pro Leu Leu Val Ala Lys Phe Glu His Phe Gln Ala 165 170 175		
Lys Thr Ile Gly His Thr Tyr Cys Ala His Met Ala Val Val Glu Leu 180 185 190		
Val Val Gly Asn Thr Gln Ala Thr Asn Leu Tyr Gly Leu Ala Leu Ser 195 200 205		
Leu Ala Ile Ser Gly Met Asp Ile Leu Gly Ile Thr Gly Ser Tyr Gly 210 215 220		
Leu Ile Ala His Ala Val Leu Gln Leu Pro Thr Arg Glu Ala His Ala 225 230 235 240		
Lys Ala Phe Gly Thr Cys Ser Ser His Ile Cys Val Ile Leu Ala Phe 245 250 255		
Tyr Ile Pro Gly Leu Phe Ser Tyr Leu Ala His Arg Phe Gly His His 260 265 270		
Thr Val Pro Lys Pro Val His Ile Leu Leu Ser Asn Ile Tyr Leu Leu 275 280 285		
Leu Pro Pro Ala Leu Asn Pro Leu Ile Tyr Gly Ala Arg Thr Lys Gln 290 295 300		
Ile Arg Asp Arg Leu Leu Glu Thr Phe Thr Phe Arg Lys Ser Pro Leu 305 310 315 320		

<210> 318

<211> 963

<212> DNA

<213> Homo sapiens

<400> 318

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atggcagaaa ctctacaact caattccacc ttctacacc caaacttctt catactgact 60
ggctttccag ggctaggaag tgcccagact tggctgacac tggctcttgg gccatttat 120
ctgctggccc tgctgggcaa tggagcactg ccggcagtgg tgtggataga ctccacactg 180
caccagccca tgtttctact gttggccatc ctggcagcca cagacctggg cttagccaca 240
tctatagccc cagggttgct ggctgtgctg tggcttgggc cccgatctgt gccatatgct 300
gtgtgcctgg tccagatgtt ctttgtacat gcactgactg ccatggaatc aggtgtgctt 360

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ttggccatgg cctgtgatcg tgctgcgcca atagggcgctc cactgcacta cctgtcctg 420
gtcaccaaag cctgtgtggg ttatgcagcc ttggccctgg cactgaaagc tgtggctatt 480
gttgtacctt tcccaactgct ggtggcaaaag tttgagcact tccaagccaa gaccataggc 540
catacctatt gtgcacacat ggcagtggta gaactgggtg tgggtaacac acagggccacc 600
aacttatatg gtctggcact ttcactggcc atctcaggtg tggatattct ggggtatcact 660
ggctcctatg gactcattgc ccatgctgtg ctgcagctac ctaccgga ggcccatgcc 720
aaggcctttg gtacatgtag ttctcacatc tgtgtcattc tggccttcta catacctggg 780
ctcttctcct acctcgaca ccgctttggt catcacactg tcccaaagcc tgtgcacatc 840
cttctctcca acatctactt gctgctgcca cctgccctca accccctcat ctatggggcc 900
cgcaccaagc agatcagaga ccgactcctg gaaaccttca cattcagaaa aagcccgttg 960
taa 963

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<210> 319
 <211> 323
 <212> PRT
 <213> Homo sapiens

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<400> 319
Met Ser His Thr Asn Val Thr Ile Phe His Pro Ala Val Phe Val Leu
 1             5             10             15

Pro Gly Ile Pro Gly Leu Glu Ala Tyr His Ile Trp Leu Ser Ile Pro
          20             25             30

Leu Cys Leu Ile Tyr Ile Thr Ala Val Leu Gly Asn Ser Ile Leu Ile
      35             40             45

Val Val Ile Val Met Glu Arg Asn Leu His Val Pro Met Tyr Phe Phe
 50             55             60

Leu Ser Met Leu Ala Val Met Asp Ile Leu Leu Ser Thr Thr Thr Val
 65             70             75             80

Pro Lys Ala Leu Ala Ile Phe Trp Leu Gln Ala His Asn Ile Ala Phe
          85             90             95

Asp Ala Cys Val Thr Gln Gly Phe Phe Val His Met Met Phe Val Gly
100             105             110

Glu Ser Ala Ile Leu Leu Ala Met Ala Phe Asp Arg Phe Val Ala Ile
115             120             125

Cys Ala Pro Leu Arg Tyr Thr Thr Val Leu Thr Trp Pro Val Val Gly
130             135             140

Arg Ile Ala Leu Ala Val Ile Thr Arg Ser Phe Cys Ile Ile Phe Pro
145             150             155             160

Val Ile Phe Leu Leu Lys Arg Leu Pro Phe Cys Leu Thr Asn Ile Val
          165             170             175

Pro His Ser Tyr Cys Glu His Ile Gly Val Ala Arg Leu Ala Cys Ala
180             185             190

Asp Ile Thr Val Asn Ile Trp Tyr Gly Phe Ser Val Pro Ile Val Met
195             200             205

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Val Ile Leu Asp Val Ile Leu Ile Ala Val Ser Tyr Ser Leu Ile Leu
 210 215 220
 Arg Ala Val Phe Arg Leu Pro Ser Gln Asp Ala Arg His Lys Ala Leu
 225 230 235 240
 Ser Thr Cys Gly Ser His Leu Cys Val Ile Leu Met Phe Tyr Val Pro
 245 250 255
 Ser Phe Phe Thr Leu Leu Thr His His Phe Gly Arg Asn Ile Pro Gln
 260 265 270
 His Val His Ile Leu Leu Ala Asn Leu Tyr Val Ala Val Pro Pro Met
 275 280 285
 Leu Asn Pro Ile Val Tyr Gly Val Lys Thr Lys Gln Ile Arg Glu Gly
 290 295 300
 Val Ala His Arg Phe Phe Asp Ile Lys Thr Trp Cys Cys Thr Ser Pro
 305 310 315 320
 Leu Gly Ser

<210> 320
 <211> 972
 <212> DNA
 <213> Homo sapiens

<400> 320
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 gtccctgggaa acagcatcct gatagtgggt attgtcatgg aacgtaacct tcatgtgccc 180
 atgtatttct tcctctcaat gctggccgtc atggacatcc tgctgtctac caccactgtg 240
 cccaaggccc tagccatctt ttggcttcaa gcacataaca ttgcttttga tgctgtgtc 300
 acccaaggct tctttgtcca tatgatgttt gtgggggagt cagctatcct gttagccatg 360
 gcctttgata gctttgtggc catttgtgcc ccactgagat atacaacagt gctaacatgg 420
 cctgttgtgg ggaggattgc tctggccgtc atcaccggaa gcttctgcat catcttccca 480
 gtcataattct tgctgaagcg gctgcccttc tgccataacca acattgttcc tactcctac 540
 tgtgagcata ttggagtggc tcgtttagcc tgtgctgaca tactgttaa catttggtat 600
 ggcttctcag tgcccattgt catggtcac ttggatgtta tcctcatcgc tgtgtcttac 660
 tcaactgatcc tccgagcagt gtttcgtttg cctcccagg atgctcggca caaggccctc 720
 agcacttggtg gctcccacct ctgtgtcatc cttatgtttt atgttccatc cttctttacc 780
 ttattgaccc atcattttgg gcgtaatat cctcaacatg tccatatctt gctggccaat 840
 ctttatgtgg cagtgccacc aatgctgaac cccattgtct atggtgtgaa gactaagcag 900
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 ctgggctcat ga 972

<210> 321
 <211> 345
 <212> PRT
 <213> Homo sapiens

<400> 321

Met	His	Phe	Leu	Ser	Gln	Asn	Asp	Leu	Asn	Ile	Asn	Leu	Ile	Pro	His	1	5	10	15
Leu	Cys	Leu	His	Arg	His	Ser	Val	Ile	Ala	Gly	Ala	Phe	Thr	Ile	His	20	25	30	
Arg	His	Met	Lys	Ile	Phe	Asn	Ser	Pro	Ser	Asn	Ser	Ser	Thr	Phe	Thr	35	40	45	
Gly	Phe	Ile	Leu	Leu	Gly	Phe	Pro	Cys	Pro	Arg	Glu	Gly	Gln	Ile	Leu	50	55	60	
Leu	Phe	Val	Leu	Phe	Thr	Val	Val	Tyr	Leu	Leu	Thr	Leu	Met	Gly	Asn	65	70	75	80
Gly	Ser	Ile	Ile	Cys	Ala	Val	His	Trp	Asp	Gln	Arg	Leu	His	Ala	Pro	85	90	95	
Met	Tyr	Ile	Leu	Leu	Ala	Asn	Phe	Ser	Phe	Leu	Glu	Ile	Cys	Tyr	Val	100	105	110	
Thr	Ser	Thr	Val	Pro	Ser	Met	Leu	Ala	Asn	Phe	Leu	Ser	Asp	Thr	Lys	115	120	125	
Ile	Ile	Ser	Phe	Ser	Gly	Cys	Phe	Leu	Gln	Phe	Tyr	Phe	Phe	Phe	Ser	130	135	140	
Leu	Gly	Ser	Thr	Glu	Cys	Phe	Phe	Leu	Ala	Val	Met	Ala	Phe	Asp	Arg	145	150	155	160
Tyr	Leu	Ala	Ile	Cys	Arg	Pro	Leu	Arg	Tyr	Pro	Thr	Ile	Met	Thr	Arg	165	170	175	
Arg	Leu	Cys	Thr	Asn	Leu	Val	Val	Asn	Cys	Trp	Val	Leu	Gly	Phe	Ile	180	185	190	
Trp	Phe	Leu	Ile	Pro	Ile	Val	Asn	Ile	Ser	Gln	Met	Ser	Phe	Cys	Gly	195	200	205	
Ser	Arg	Ile	Ile	Asp	His	Phe	Leu	Cys	Asp	Pro	Ala	Pro	Leu	Leu	Thr	210	215	220	
Leu	Thr	Cys	Lys	Lys	Gly	Pro	Val	Ile	Glu	Leu	Val	Phe	Ser	Val	Leu	225	230	235	240
Ser	Pro	Leu	Pro	Val	Phe	Met	Leu	Phe	Leu	Phe	Ile	Val	Gly	Ser	Tyr	245	250	255	
Ala	Leu	Val	Val	Arg	Ala	Val	Leu	Arg	Val	Pro	Ser	Ala	Ala	Gly	Arg	260	265	270	
Arg	Lys	Ala	Phe	Ser	Thr	Cys	Gly	Ser	His	Leu	Ala	Val	Val	Ser	Leu	275	280	285	
Phe	Tyr	Gly	Ser	Val	Leu	Val	Met	Tyr	Gly	Ser	Pro	Pro	Ser	Lys	Asn	290	295	300	

Glu Ala Gly Lys Gln Lys Thr Val Thr Leu Phe Tyr Ser Val Val Thr
 305 310 315 320

Pro Leu Leu Asn Pro Val Ile Tyr Ser Leu Arg Asn Lys Asp Met Arg
 325 330 335

Lys Ala Leu Lys Lys Phe Trp Gly Thr
 340 345

<210> 322
 <211> 1038
 <212> DNA
 <213> Homo sapiens

<400> 322
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 cccagcaact ccagcacctt cactggcttc atcctcctgg gcttcccttg ccccagggag 180
 gggcagatcc tcctctttgt gctcttcact gttgtttacc tcctgacct catgggcaat 240
 ggttccatca tctgtgctgt gcactgggat cagagactcc acgccccat gtacatcctg 300
 ctgcgcaact tctccttctt ggagatatgt tatgtcacct ccacagtccc cagcatgctg 360
 gccaaacttcc tctctgacac caagatcatc tcgttctctg gctgcttcct ccagttctac 420
 tttttcttct ccttgggctc tacagaatgc tttttcctgg cagttatggc atttgatcga 480
 taccttgcca tctgtcggcc tctacgctat ccaaccatta tgaccagacg tctctgtacc 540
 aatcttgctg tcaattgctg ggtacttggt ttcactctgg tcttgattcc tatcgccaac 600
 atctcccaaa tgccttctg tggatctagg attattgacc acttcctatg tgaccagct 660
 cctcttctaa ctctcacttg caaaaaaggc cctgtgatag agcttgtctt ttctgtctta 720
 agtctctgct ctgtctttat gctctttctc ttcattgtgg ggtcctatgc tctggctcgtg 780
 agagctgtgt tgagggtccc ttcagcagct gggagaagaa aggctttctc cacctgtggg 840
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 ccatctaaga atgaagctgg aaagcagaag actgtgactc tgttttattc tgttgttacc 960
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<210> 323
 <211> 330
 <212> PRT
 <213> Homo sapiens

<400> 323
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 20 25 30
 Leu Gly Phe His Gly Gln Arg Glu Met Gln Ser Cys Phe Phe Ser Phe
 35 40 45
 Ile Leu Val Leu Tyr Leu Leu Thr Leu Leu Gly Asn Gly Ala Ile Val
 50 55 60
 Cys Ala Val Lys Leu Asp Arg Arg Leu His Thr Pro Met Tyr Ile Leu
 65 70 75 80

Leu Gly Asn Phe Ala Phe Leu Glu Ile Trp Tyr Ile Ser Ser Thr Val
 85 90 95
 Pro Asn Met Leu Val Asn Ile Leu Ser Glu Ile Lys Thr Ile Ser Phe
 100 105 110
 Ser Gly Cys Phe Leu Gln Phe Tyr Phe Phe Phe Ser Leu Gly Thr Thr
 115 120 125
 Glu Cys Phe Phe Leu Ser Val Met Ala Tyr Asp Arg Tyr Leu Ala Ile
 130 135 140
 Cys Arg Pro Leu His Tyr Pro Ser Ile Met Thr Gly Lys Phe Cys Ile
 145 150 155 160
 Ile Leu Val Cys Val Cys Trp Val Gly Gly Phe Leu Cys Tyr Pro Val
 165 170 175
 Pro Ile Val Leu Ile Ser Gln Leu Pro Phe Cys Gly Pro Asn Ile Ile
 180 185 190
 Asp His Leu Val Cys Asp Pro Gly Pro Leu Phe Ala Leu Ala Cys Ile
 195 200 205
 Ser Ala Pro Ser Thr Glu Leu Ile Cys Tyr Thr Phe Asn Ser Met Ile
 210 215 220
 Ile Phe Gly Pro Phe Leu Ser Ile Leu Gly Ser Tyr Thr Leu Val Ile
 225 230 235 240
 Arg Ala Val Leu Cys Ile Pro Ser Gly Ala Gly Arg Thr Lys Ala Phe
 245 250 255
 Ser Thr Cys Gly Ser His Leu Met Val Val Ser Leu Phe Tyr Gly Thr
 260 265 270
 Leu Met Val Met Tyr Val Ser Pro Thr Ser Gly Asn Pro Ala Gly Met
 275 280 285
 Gln Lys Ile Ile Thr Leu Val Tyr Thr Ala Met Thr Pro Phe Leu Asn
 290 295 300
 Pro Leu Ile Tyr Ser Leu Arg Asn Lys Asp Met Lys Asp Ala Leu Lys
 305 310 315 320
 Arg Val Leu Gly Leu Thr Val Ser Gln Asn
 325 330

<210> 324

<211> 993

<212> DNA

<213> Homo sapiens

<400> 324

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 aacagaacaa tgcattttgt gactgagttt gtctcctcgg gtttccatgg tcaaagggag 120


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atgcagagct gcttcttctc attcatcctg gttctctatc tcctgacact gctaggggaat 180
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ctgggaaact ttgcctttct agagatctgg tacatttcct ccactgtccc aaacatgcta 300
gtcaatatcc tctctgagat taaaaccatc tccttctctg gttgcttcct gcaattctat 360
ttcttttttt cactgggtac aacagagtgt ttctttttat cagttaatggc ttatgatcgg 420
tacctggcca tctgtcgtcc attacactac ccctccatca tgactgggaa gttctgtata 480
attctgggtc gtgtatgctg ggtaggcgga tttctctgct atccagtccc tattgttctt 540
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ccattgtttg cactggcctg catctctgct ccttccactg agcttatctg ttacaccttc 660
aactcgatga ttatctttgg gcccttctc tccatcttgg gatcttacac tctggtcac 720
agagctgtgc tttgtattcc ctctgggtgt ggtcgaacta aagctttctc cacatgtggg 780
tcccaccta tggtgggtgc tctattctat ggaaccctta tggatgta tgtgagcca 840
acatcaggga acccgagg aatgcagaag atcatcactc tggatatac agcaatgact 900
ccattcttaa atcccttat ctatagtctt cgaaacaaag acatgaaaga tgctctaaag 960
agagtcctgg ggtaacagt tagccaaaac tga 993

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<210> 325

<211> 324

<212> PRT

<213> Homo sapiens

<400> 325

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Met Ser Phe Phe Phe Val Asp Leu Arg Pro Met Asn Arg Ser Ala Thr
  1             5             10             15

His Ile Val Thr Glu Phe Ile Leu Leu Gly Phe Pro Gly Cys Trp Lys
      20             25             30

Ile Gln Ile Phe Leu Phe Ser Leu Phe Leu Val Ile Tyr Val Leu Thr
      35             40             45

Leu Leu Gly Asn Gly Ala Ile Ile Tyr Ala Val Arg Cys Asn Pro Leu
      50             55             60

Leu His Thr Pro Met Tyr Phe Leu Leu Gly Asn Phe Ala Phe Leu Glu
      65             70             75             80

Ile Trp Tyr Val Ser Ser Thr Ile Pro Asn Met Leu Val Asn Ile Leu
      85             90             95

Ser Lys Thr Lys Ala Ile Ser Phe Ser Gly Cys Phe Leu Gln Phe Tyr
      100            105            110

Phe Phe Phe Ser Leu Gly Thr Thr Glu Cys Leu Phe Leu Ala Val Met
      115            120            125

Ala Tyr Asp Arg Tyr Leu Ala Ile Cys His Pro Leu Gln Tyr Pro Ala
      130            135            140

Ile Met Thr Val Arg Phe Cys Gly Lys Leu Val Ser Phe Cys Trp Leu
      145            150            155            160

Ile Gly Phe Leu Gly Tyr Pro Ile Pro Ile Phe Tyr Ile Ser Gln Leu
      165            170            175

Pro Phe Cys Gly Pro Asn Ile Ile Asp His Phe Leu Cys Asp Met Asp

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180	185	190
Pro Leu Met Ala Leu Ser Cys	Ala Pro Ala Pro Ile Thr Glu Cys Ile	
195	200	205
Phe Tyr Thr Gln Ser Ser Leu Val	Leu Phe Phe Thr Ser Met Tyr Ile	
210	215	220
Leu Arg Ser Tyr Ile Leu Leu Leu Thr	Ala Val Phe Gln Val Pro Ser	
225	230	235
Ala Ala Gly Arg Arg Lys Ala Phe Ser	Thr Cys Gly Ser His Leu Val	
245	250	255
Val Val Ser Leu Phe Tyr Gly Thr	Val Met Val Met Tyr Val Ser Pro	
260	265	270
Thr Tyr Gly Ile Pro Thr Leu Leu Gln	Lys Ile Leu Thr Leu Val Tyr	
275	280	285
Ser Val Thr Thr Pro Leu Phe Asn	Pro Leu Ile Tyr Thr Leu Arg Asn	
290	295	300
Lys Asp Met Lys Leu Ala Leu Arg	Asn Val Leu Phe Gly Met Arg Ile	
305	310	315
320		
Arg Gln Asn Ser		

<210> 326
 <211> 975
 <212> DNA
 <213> Homo sapiens

<400> 326
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 tttttggtga tttatgtctt gaccttgctg ggaaatggag ccatcatcta tgcagtgaga 180
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 atctggtagt tgtcctccac tattcctaac atgctagtca acattctctc caagaccaag 300
 gccatctcat tttctgggtg cttcctccag ttctatttct tcttttctact gggaacaact 360
 gaatgtctct ttctggcagt aatggcttat gatcgatacc tggccatctg ccaccactg 420
 cagtaccctg ccatcatgac tgtaagggtc tgtggttaagc tgggtgtctt ctggtggctt 480
 attggattcc ttggataccc aattcccatt ttctacatct cccaactccc cttctgtggt 540
 cctaatatca ttgatcactt cctgtgtgac atggacccat tgatggctct atcctgtgcc 600
 ccagctccca taactgaatg tattttctat actcagagct cccttgtcct ctttttctact 660
 agtatgtaca ttcttcgatc ctatatcctg ttactaacag ctgtttttca ggtcccttct 720
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 ttctatggga cagtcattgt aatgtatgta agtcctacat atgggatccc aactttattg 840
 cagaagatcc tcacactggg atattcagta acgactcctc tttttaatcc tctgatctat 900
 actcttcgta ataaggacat gaaactcgct ctgagaaatg tcctgtttgg aatgagaatt 960
 cgtcaaaatt cgtga 975

<210> 327
 <211> 291

<212> PRT

<213> Homo sapiens

<400> 327

Met	Val	Gly	Ala	Asn	His	Ser	Val	Val	Ser	Glu	Phe	Val	Phe	Leu	Gly	
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Leu	Thr	Asn	Ser	Trp	Glu	Ile	Arg	Leu	Leu	Leu	Leu	Val	Phe	Ser	Ser	
		20						25					30			
Met	Phe	Tyr	Met	Ala	Ser	Met	Met	Gly	Asn	Ser	Leu	Ile	Leu	Leu	Thr	
		35					40					45				
Val	Thr	Ser	Asp	Pro	His	Leu	His	Ser	Pro	Met	Tyr	Phe	Leu	Leu	Ala	
	50					55					60					
Asn	Leu	Ser	Phe	Ile	Asp	Leu	Gly	Val	Ser	Ser	Val	Thr	Ser	Pro	Lys	
65					70					75					80	
Met	Ile	Tyr	Asp	Leu	Phe	Arg	Lys	His	Glu	Val	Ile	Ser	Phe	Gly	Gly	
				85					90					95		
Cys	Ile	Ala	Gln	Ile	Phe	Phe	Ile	His	Val	Ile	Gly	Gly	Val	Glu	Met	
			100					105					110			
Val	Leu	Leu	Ile	Ala	Met	Ala	Phe	Asp	Arg	Tyr	Val	Ala	Ile	Cys	Lys	
	115					120						125				
Pro	Leu	Gln	Tyr	Leu	Thr	Ile	Met	Ser	Pro	Arg	Met	Cys	Met	Phe	Phe	
	130					135					140					
Leu	Val	Ala	Ala	Trp	Val	Thr	Gly	Leu	Ile	His	Ser	Val	Val	Gln	Leu	
145					150					155					160	
Val	Phe	Val	Val	Asn	Leu	Pro	Phe	Cys	Gly	Pro	Asn	Val	Ser	Asp	Ser	
				165					170					175		
Phe	Tyr	Cys	Asp	Leu	Pro	Arg	Phe	Ile	Lys	Leu	Ala	Cys	Thr	Asp	Ser	
			180					185					190			
Tyr	Arg	Leu	Glu	Phe	Met	Val	Thr	Ala	Asn	Ser	Gly	Phe	Ile	Ser	Leu	
	195						200					205				
Gly	Ser	Phe	Phe	Ile	Leu	Ile	Ile	Ser	Tyr	Val	Val	Ile	Ile	Leu	Thr	
	210					215					220					
Val	Leu	Lys	His	Ser	Ser	Ala	Gly	Leu	Ser	Lys	Ala	Leu	Ser	Thr	Leu	
225					230					235					240	
Ser	Ala	His	Val	Ser	Val	Val	Val	Leu	Phe	Phe	Gly	Pro	Leu	Ile	Phe	
				245					250					255		
Val	Tyr	Thr	Trp	Pro	Ser	Pro	Ser	Thr	His	Leu	Asp	Lys	Phe	Leu	Ala	
			260					265					270			
Ile	Phe	Asp	Ala	Val	Leu	Thr	Pro	Val	Leu	Asn	Pro	Ile	Ile	Tyr	Thr	
		275					280					285				

Phe Arg Asn
290

<210> 328
<211> 876
<212> DNA
<213> Homo sapiens

<400> 328
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ggaaactctc tcattttgct cactgtgact tctgaccctc acttgcactc ccccatgtat 180
tttctgttag ccaacctctc cttcattgac ctgggtgttt cctctgtcac ttctcccaaa 240
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atcttcttca tccacgtcat tggcgggtgtg gagatgggtgc tgctcatagc catggccttt 360
gacagatatg tggccatatg taagccctc cagtacctga ccattatgag cccaagaatg 420
tgcattgtct tcttagtggc tgcctgggtg accggcctta tccactctgt agttcaattg 480
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cttcctcggg tcatcaaact tgcctgcaca gacagctacc gactggagtt catgggttaca 600
gccaacagtg gattcatctc tctgggctcc ttcttcatac tgatcatttc ctatgtggtc 660
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tcagctcacg tcagtgtggt agttttgttc tttggtcctt tgatttttgt ctatacgtgg 780
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gttttaaata ctatcatcta cacattcagg aattga 876

<210> 329
<211> 312
<212> PRT
<213> Homo sapiens

<400> 329
Met Asn Gly Met Asn His Ser Val Val Ser Glu Phe Val Phe Met Gly
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Leu Thr Asn Ser Arg Glu Ile Gln Leu Leu Leu Phe Val Phe Ser Leu
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Leu Phe Tyr Phe Ala Ser Met Met Gly Asn Leu Val Ile Val Phe Thr
35 40 45
Val Thr Met Asp Ala His Leu His Ser Pro Met Tyr Phe Leu Leu Ala
50 55 60
Asn Leu Ser Ile Ile Asp Met Ala Phe Cys Ser Ile Thr Ala Pro Lys
65 70 75 80
Met Ile Cys Asp Ile Phe Lys Lys His Lys Ala Ile Ser Phe Arg Gly
85 90 95
Cys Ile Thr Gln Ile Phe Phe Ser His Ala Leu Gly Gly Thr Glu Met
100 105 110
Val Leu Leu Ile Ala Met Ala Phe Asp Arg Tyr Met Ala Ile Cys Lys
115 120 125

Pro Leu His Tyr Leu Thr Ile Met Ser Pro Arg Met Cys Leu Tyr Phe
 130 135 140
 Leu Ala Thr Ser Ser Ile Ile Gly Leu Ile His Ser Leu Val Gln Leu
 145 150 155 160
 Val Phe Val Val Asp Leu Pro Phe Cys Gly Pro Asn Ile Phe Asp Ser
 165 170 175
 Phe Tyr Cys Asp Leu Pro Arg Leu Leu Arg Leu Ala Cys Thr Asn Thr
 180 185 190
 Gln Glu Leu Glu Phe Met Val Thr Val Asn Ser Gly Leu Ile Ser Val
 195 200 205
 Gly Ser Phe Val Leu Leu Val Ile Ser Tyr Ile Phe Ile Leu Phe Thr
 210 215 220
 Val Trp Lys His Ser Ser Gly Gly Leu Ala Lys Ala Leu Ser Thr Leu
 225 230 235 240
 Ser Ala His Val Thr Val Val Ile Leu Phe Phe Gly Pro Leu Met Phe
 245 250 255
 Phe Tyr Thr Trp Pro Ser Pro Thr Ser His Leu Asp Lys Tyr Leu Ala
 260 265 270
 Ile Phe Asp Ala Phe Ile Thr Pro Phe Leu Asn Pro Val Ile Tyr Thr
 275 280 285
 Phe Arg Asn Lys Asp Met Lys Val Ala Met Arg Arg Leu Cys Ser Arg
 290 295 300
 Leu Ala His Phe Thr Lys Ile Leu
 305 310

<210> 330
 <211> 939
 <212> DNA
 <213> Homo sapiens

<400> 330
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 ggaaaccttg tcattgtatt cactgtaacc atggatgctc atctgcactc ccccatgtat 180
 ttctctctgg ctaacctctc aatcattgat atggcatttt gctcaattac agcccctaag 240
 atgatttgtg atattttcaa gaagcacaag gccatctcct ttcggggatg tattactcag 300
 atcttcttta gccatgctct tgggggcact gagatggtgc tgctcatagc catggccttt 360
 gacagataca tggccatag taaacctctc cactacctga ccatcatgag cccaagaatg 420
 tgtctatact ttttagccac ttctctatc attggcctta tccactcatt ggtccaatta 480
 gtttttgtgg tagatttacc tttttgtggc cctaatatct ttgacagttt ttactgtgat 540
 ctccctcggc tcctcagact tgcctgtacc aacacccaag aactggagtt catggctact 600
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 attctgttca ctgtttgga acattcttct ggtggtctag ccaaggccct ctctaccctg 720
 tcagctcatg tcactgtggc catcttggtc tttggggcac tgatgttttt ctacacatgg 780

ccttctccca catcacacct ggataaatat cttgctatatt ttgatgcatt tattactcct 840
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 ctgtgcagtc gtcttgcgca ttttacaag attttgtaa 939

<210> 331
 <211> 354
 <212> PRT
 <213> Homo sapiens

<400> 331
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 20 25 30
 Asn Thr Thr Ser Ser Ser Ser Asn Phe Leu Leu Thr Ala Phe Pro Gly
 35 40 45
 Leu Glu Cys Ala His Val Trp Ile Ser Ile Pro Val Cys Cys Leu Tyr
 50 55 60
 Thr Ile Ala Leu Leu Gly Asn Ser Met Ile Phe Leu Val Ile Ile Thr
 65 70 75 80
 Lys Arg Arg Leu His Lys Pro Met Tyr Tyr Phe Leu Ser Met Leu Ala
 85 90 95
 Ala Val Asp Leu Cys Leu Thr Ile Thr Thr Leu Pro Thr Val Leu Gly
 100 105 110
 Val Leu Trp Phe His Ala Arg Glu Ile Ser Phe Lys Ala Cys Phe Ile
 115 120 125
 Gln Met Phe Phe Val His Ala Phe Ser Leu Leu Glu Ser Ser Val Leu
 130 135 140
 Val Ala Met Ala Phe Asp Arg Phe Val Ala Ile Cys Asn Pro Leu Asn
 145 150 155 160
 Tyr Ala Thr Ile Leu Thr Asp Arg Met Val Leu Val Ile Gly Leu Val
 165 170 175
 Ile Cys Ile Arg Pro Ala Val Phe Leu Leu Pro Leu Leu Val Ala Ile
 180 185 190
 Asn Thr Val Ser Phe His Gly Gly His Glu Leu Ser His Pro Phe Cys
 195 200 205
 Tyr His Pro Glu Val Ile Lys Tyr Thr Tyr Ser Lys Pro Trp Ile Ser
 210 215 220
 Ser Phe Trp Gly Leu Phe Leu Gln Leu Tyr Leu Asn Gly Thr Asp Val
 225 230 235 240
 Leu Phe Ile Leu Phe Ser Tyr Val Leu Ile Leu Arg Thr Val Leu Gly

	245		250		255
Ile Val Ala Arg Lys Lys Gln Gln Lys Ala Leu Ser Thr Cys Val Cys					
	260		265		270
His Ile Cys Ala Val Thr Ile Phe Tyr Val Pro Leu Ile Ser Leu Ser					
	275		280		285
Leu Ala His Arg Leu Phe His Ser Thr Pro Arg Val Leu Cys Ser Thr					
	290		295		300
Leu Ala Asn Ile Tyr Leu Leu Leu Pro Pro Val Leu Asn Pro Ile Ile					
305		310		315	320
Tyr Ser Leu Lys Thr Lys Thr Ile Arg Gln Ala Met Phe Gln Leu Leu					
	325		330		335
Gln Ser Lys Gly Ser Trp Gly Phe Asn Val Arg Gly Leu Arg Gly Arg					
	340		345		350

Trp Asp

<210> 332
 <211> 1065
 <212> DNA
 <213> Homo sapiens

<400> 332
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 ttcctcctca ctgcattccc tgggctggaa tgtgctcatg tctggatctc cattccagtc 180
 tgctgtctct acaccattgc cctcttggga aacagtatga tctttcttgt catcattact 240
 aagcggagac tccacaaacc catgtattat ttctcttcca tgctggcagc tgttgatcta 300
 tgtctgacca ttacgacct tcccactgtg cttgggtgttc tctggtttca tgcccgggag 360
 atcagcttta aagcttgctt cattcaaag ttctttgtgc atgctttctc cttgctggag 420
 tctcgggtgc tggtagccat ggcctttgac cgcttcgtgg ctatctgtaa cccactgaac 480
 tatgtacta tctcacaga caggatggtc ctggatagat ggctgggtcat ctgcattaga 540
 ccagcagttt tcttacttcc ccttcttgta gccataaaca ctgtgtcttt tcatgggggt 600
 cagcagcttt cccatccatt ttgctaccac ccagaagtga tcaaatacac atattccaaa 660
 ccttgatca gcagtttttg gggactgttt cttcagctct acctgaatgg cactgacgta 720
 ttgtttattc ttttctccta tgtcctgac ctccgtactg ttctgggcat tgtggcccga 780
 aagaagcaac aaaaagctct cagcacttgt gtctgtcaca tctgtgcagt cactattttc 840
 tatgtgccac tgatcagcct ctctttggca caccgcctct tccactccac cccaagggtg 900
 ctctgtagca ctttggccaa tatttatctg ctcttaccac ctgtgctgaa ccctatcatt 960
 tacagcttga agaccaagac aatccgccag gctatgttcc agctgctcca atccaagggt 1020
 tcatgggggt ttaatgtgag gggctctagg ggaagatggg attga 1065

<210> 333
 <211> 312
 <212> PRT
 <213> Homo sapiens

<400> 333
 Met Ser Val Leu Asn Asn Ser Glu Val Lys Leu Phe Leu Leu Ile Gly

1	5	10	15
Ile Pro Gly	Leu Glu His Ala His	Ile Trp Phe Ser	Ile Pro Ile Cys
	20	25	30
Leu Met Tyr	Leu Leu Ala Ile Met	Gly Asn Cys Thr	Ile Leu Phe Ile
	35	40	45
Ile Lys Thr	Glu Pro Ser Leu His	Glu Pro Met Tyr	Tyr Phe Leu Ala
	50	55	60
Met Leu Ala Val	Ser Asp Met Gly Leu Ser	Leu Ser Ser Leu Pro	Thr
	65	70	75
Met Leu Arg Val	Phe Leu Phe Asn Ala	Met Gly Ile Ser Pro	Asn Ala
	85	90	95
Cys Phe Ala	Gln Glu Phe Phe Ile	His Gly Phe Thr Val	Met Glu Ser
	100	105	110
Ser Val Leu Leu Ile Met	Ser Leu Asp Arg Phe	Leu Ala Ile His Asn	
	115	120	125
Pro Leu Arg Tyr Ser Ser	Ile Leu Thr Ser Asn	Arg Val Ala Lys Met	
	130	135	140
Gly Leu Ile Leu Ala Ile	Arg Ser Ile Leu Leu Val	Ile Pro Phe Pro	
	145	150	155
Phe Thr Leu Arg Arg Leu Lys Tyr Cys	Gln Lys Asn Leu Leu Ser His		
	165	170	175
Ser Tyr Cys Leu His Gln Asp Thr Met	Lys Leu Ala Cys Ser Asp Asn		
	180	185	190
Lys Thr Asn Val Ile Tyr Gly Phe Phe Ile Ala Leu Cys Thr Met Leu			
	195	200	205
Asp Leu Ala Leu Ile Val Leu Ser Tyr Val Leu Ile Leu Lys Thr Ile			
	210	215	220
Leu Ser Ile Ala Ser Leu Ala Glu Arg Leu Lys Ala Leu Asn Thr Cys			
	225	230	235
Val Ser His Ile Cys Ala Val Leu Thr Phe Tyr Val Pro Ile Ile Thr			
	245	250	255
Leu Ala Ala Met His His Phe Ala Lys His Lys Ser Pro Leu Val Val			
	260	265	270
Ile Leu Ile Ala Asp Met Phe Leu Leu Val Pro Pro Leu Met Asn Pro			
	275	280	285
Ile Val Tyr Cys Val Lys Thr Arg Gln Ile Trp Glu Lys Ile Leu Gly			
	290	295	300
Lys Leu Leu Asn Val Cys Gly Arg			

305

310

<210> 334

<211> 939

<212> DNA

<213> Homo sapiens

<400> 334

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atgtctgttc tcaataactc cgaagtcaag cttttccttc tgattgggat cccaggactg 60
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ggcaactgca ccattctctt tattataaag acagagccct cgcttcatga gcccattgat 180
tatttccttg ccattgttggc tgtctctgac atgggcctgt ccctctcctc ccttctacc 240
atgttgaggg tcttcttgtt caatgccatg ggaatttcac ctaatgcctg ctttgcctca 300
gaattcttca ttcattggatt cactgtcatg gaatcctcag tacttctaata tatgtctttg 360
gaccgctttc ttgccattca caatccctta agatacagtt ctatcctcac tagcaacagg 420
gttgctaaaa tgggacttat tttagccatt aggagcattc tcttagtgat tccatttccc 480
ttcaccttaa ggagattaaa atattgtcaa aagaatcttc tttctcactc atactgtctt 540
catcaggata ccatgaagct ggccctgctct gacaacaaga ccaatgtcat ctatggcttc 600
ttcttgctc tctgtactat gctggacttg gcactgattg ttttgcctta tgtgctgac 660
ttgaagacta tactcagcat tgcactcttg gcagagaggc ttaaggccct aaatacctgt 720
gtctcccaca tctgtgctgt gctcaccttc tatgtgcca tcatcacctt ggctgccatg 780
catcactttg ccaagcacia aagccctctt gttgtgatcc ttattgcaga tatgttcttg 840
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aagatcttgg ggaagttgct taatgtatgt gggagataa 939

```

<210> 335

<211> 314

<212> PRT

<213> Homo sapiens

<400> 335

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Met Thr Leu Gly Ser Leu Gly Asn Ser Ser Ser Ser Val Ser Ala Thr
  1              5              10              15

Phe Leu Leu Ser Gly Ile Pro Gly Leu Glu Arg Met His Ile Trp Ile
      20              25              30

Ser Ile Pro Leu Cys Phe Met Tyr Leu Val Ser Ile Pro Gly Asn Cys
      35              40              45

Thr Ile Leu Phe Ile Ile Lys Thr Glu Arg Ser Leu His Glu Pro Met
      50              55              60

Tyr Leu Phe Leu Ser Met Leu Ala Leu Ile Asp Leu Gly Leu Ser Leu
      65              70              75              80

Cys Thr Leu Pro Thr Val Leu Gly Ile Phe Trp Val Gly Ala Arg Glu
      85              90              95

Ile Ser His Asp Ala Cys Phe Ala Gln Leu Phe Phe Ile His Cys Phe
      100              105              110

Ser Phe Leu Glu Ser Ser Val Leu Leu Ser Met Ala Phe Asp Arg Phe
      115              120              125

```

Val Ala Ile Cys His Pro Leu His Tyr Val Ser Ile Leu Thr Asn Thr
 130 135 140
 Val Ile Gly Arg Ile Gly Leu Val Ser Leu Gly Arg Ser Val Ala Leu
 145 150 155 160
 Ile Phe Pro Leu Pro Phe Met Leu Lys Arg Phe Pro Tyr Cys Gly Ser
 165 170 175
 Pro Val Leu Ser His Ser Tyr Cys Leu His Gln Glu Val Met Lys Leu
 180 185 190
 Ala Cys Ala Asp Met Lys Ala Asn Ser Ile Tyr Gly Met Phe Val Ile
 195 200 205
 Val Ser Thr Val Gly Ile Asp Ser Leu Leu Ile Leu Phe Ser Tyr Ala
 210 215 220
 Leu Ile Leu Arg Thr Val Leu Ser Ile Ala Ser Arg Ala Glu Arg Phe
 225 230 235 240
 Lys Ala Leu Asn Thr Cys Val Ser His Ile Cys Ala Val Leu Leu Phe
 245 250 255
 Tyr Thr Pro Met Ile Gly Leu Ser Val Ile His Arg Phe Gly Lys Gln
 260 265 270
 Ala Pro His Leu Val Gln Val Val Met Gly Phe Met Tyr Leu Leu Phe
 275 280 285
 Pro Pro Val Met Asn Pro Ile Val Tyr Ser Val Lys Thr Lys Gln Ile
 290 295 300
 Arg Asp Arg Val Thr His Ala Phe Cys Tyr
 305 310

<210> 336
 <211> 945
 <212> DNA
 <213> Homo sapiens

<400> 336
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 ggcacccctg ggctggagcg catgcacatc tggatctcca tcccactgtg cttcatgtat 120
 ctggttttcca tcccgggcaa ctgcacaatt ctttttatca ttaaaacaga gcgctcactt 180
 catgaaccta tgtatctctt cctgtccatg ctggctctga ttgacctggg tctctccctt 240
 tgcactctcc ctacagtcct gggcatcttt tgggttggag cacgagaaat tagccatgat 300
 gcctgctttg ctcagctctt ttctattcac tgcttctcct tcctcgagtc ctctgtgcta 360
 ctgtctatgg cctttgaccg ctttgtggct atctgccacc ccttgcacta tgtttccatt 420
 ctcaccaaca cagtcattgg caggattggc ctgggtctctc tgggtcgtag tgtagcactc 480
 atttttccat taccttttat gctcaaaaga ttcccttatt gtggctcccc agttctctca 540
 cattcttatt gtctccacca agaagtgatg aaattggcct gtgccgacat gaaggccaac 600
 agcatctacg gcatgtttgt catcgtctct acagtggtga tagactcact gctcatcctc 660
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 aaggccctta acacctgtgt ttccacatc tgtgctgtgc tgctcttcta cactcccatg 780
 attggcctct ctgtcatcca tcgctttgga aagcaggcac cccacctggg ccaggtgggtc 840

atggggtttca tgtatcttct ctttctctct gtgatgaatc ccattgtcta cagtgtgaag 900
 accaaacaga tccgggatcg agtgacgcat gccttttgtt actaa 945

<210> 337
 <211> 302
 <212> PRT
 <213> Homo sapiens

<400> 337
 Met Thr Asn Leu Asn Ala Ser Gln Ala Asn His Arg Asn Phe Ile Leu
 1 5 10 15
 Thr Gly Ile Pro Gly Thr Pro Asp Lys Asn Pro Trp Leu Ala Phe Pro
 20 25 30
 Leu Gly Phe Leu Tyr Thr Leu Thr Leu Leu Gly Asn Gly Thr Ile Leu
 35 40 45
 Ala Val Ile Lys Val Glu Pro Ser Leu His Glu Pro Thr Tyr Tyr Phe
 50 55 60
 Leu Ser Ile Leu Ala Leu Thr Asp Val Ser Leu Ser Met Ser Thr Leu
 65 70 75 80
 Pro Ser Met Leu Ser Ile Tyr Trp Phe Asn Ala Pro Gln Ile Val Phe
 85 90 95
 Asp Ala Cys Ile Met Gln Met Phe Phe Ile His Val Phe Gly Ile Val
 100 105 110
 Glu Ser Gly Val Leu Val Ser Met Ala Phe Asp Arg Phe Val Ala Ile
 115 120 125
 Arg Asn Pro Leu His Tyr Val Ser Ile Leu Thr His Asp Val Ile Arg
 130 135 140
 Lys Thr Gly Ile Ser Val Leu Thr Arg Ala Val Cys Val Val Phe Pro
 145 150 155 160
 Val Pro Phe Leu Ile Lys Cys Leu Pro Phe Cys His Ser Asn Val Leu
 165 170 175
 Ser His Ser Tyr Cys Leu His Gln Asn Met Met Arg Leu Ala Cys Ala
 180 185 190
 Ser Thr Arg Ile Asn Ser Leu Tyr Gly Leu Ile Val Val Ile Phe Thr
 195 200 205
 Leu Gly Leu Asp Val Leu Leu Thr Leu Leu Ser Tyr Val Leu Thr Leu
 210 215 220
 Lys Thr Val Leu Gly Ile Val Ser Arg Gly Glu Arg Leu Lys Thr Leu
 225 230 235 240
 Ser Thr Cys Leu Ser His Met Ser Thr Val Leu Leu Phe Tyr Val Pro
 245 250 255

Phe Met Gly Ala Ala Ser Met Ile His Arg Phe Trp Glu His Leu Ser
260 265 270

Pro Val Val His Met Val Met Ala Asp Ile Tyr Leu Leu Leu Pro Pro
275 280 285

Val Leu Asn Pro Ile Val Tyr Ser Val Lys Thr Lys Gln Ile
290 295 300

<210> 338
<211> 909
<212> DNA
<213> Homo sapiens

<400> 338
atgacgaact tgaatgcatc acaggccaac caccgtaact tcattctgac aggtatccca 60
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ctcctgggaa atggtaccat cctagctgtc atcaagggtg agccaagtct ccatgagccc 180
acgtattact tcctttctat cttggctctc actgacgtta gtctctccat gtccaccttg 240
ccctccatgc tcagcatcta ctgggttaat gccctcaga ttgtttttga tgcattgcac 300
atgcagatgt tcttcatcca tgtatttggg atagtagaat caggagtcct agtgtccatg 360
gcctttgaca gatttgtggc catccgaaac ccattacact atgtttccat cctcactcac 420
gatgttattc gaaagactgg aatatctgtc ctcacccggg cagtctgtgt ggtattccct 480
gtgcccttcc ttataaagtg cctacccttc tgccattcca atgtcttgct tcattcatac 540
tgtcttcacc aaaacatgat gcggttagct tgtgccagca cccgcatcaa cagcctctac 600
ggcctcatcg tcgtcatctt cacactgggg ctgatgttc tcctcactct actgtcttat 660
gtactcacc tgaagactgt gctgggcatt gtctccagag gtgaaaggct gaaaaccctc 720
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gcctccatga tccacagatt ttgggagcat ttatcaccag tagtgcacat ggtcatggct 840
gatataatcc tactgtctcc gcctgtgcta aacccattg tctacagtgt gaagaccaag 900
caaatttga 909

<210> 339
<211> 323
<212> PRT
<213> Homo sapiens

<400> 339
Met Ser Thr Leu Pro Thr Gln Ile Ala Pro Asn Ser Ser Thr Ser Met
1 5 10 15

Ala Pro Thr Phe Leu Leu Val Gly Met Pro Gly Leu Ser Gly Ala Pro
20 25 30

Ser Trp Trp Thr Leu Pro Leu Ile Ala Val Tyr Leu Leu Ser Ala Leu
35 40 45

Gly Asn Gly Thr Ile Leu Trp Ile Ile Ala Leu Gln Pro Ala Leu His
50 55 60

Arg Pro Met His Phe Phe Leu Phe Leu Leu Ser Val Ser Asp Ile Gly
65 70 75 80

Leu Val Thr Ala Leu Met Pro Thr Leu Leu Gly Ile Ala Leu Ala Gly


```

cccgccctgc accgcccaat gcacttcttc ctcttcttgc ttagtgtgtc tgatattgga 240
ttggctcactg ccctgatgcc cacactgctg ggcacgcgcc ttgctgggtgc tcacactgtc 300
cctgcctcag cctgccttct acagatgggt tttatccatg tcttttctgt catggagtcc 360
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gtcctaacc attcttattg cttgcatcca gatgtggctc gtttggcctg cccagaagct 600
tggggtgcag cctacagcct atttgtgggt ctttcagcca tgggttttga cccctgctt 660
attttcttct cctatggcct gattggcaag gtgttgcaag gtgtggagtc cagagaggat 720
cgctggaagg ctggtcaaac ctgtgctgcc cacctctctg cagtgtcctt cttctatatc 780
cctatgatcc tcctggcact gattaacct cctgagctgc caatcactca gcatacccat 840
actcttctat cctatgtcca tttccttctt cctccattga taaaccctat tctctatagt 900
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ggtgctcagt ga 972

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<210> 341
 <211> 394
 <212> PRT
 <213> Homo sapiens

```

<400> 341
Met Phe Tyr Pro Ile Leu Asn Asp Ile Ser Thr Lys Asn Asn Ser Asn
  1             5             10             15

Ile Met Ser Cys Cys Asn Ile Leu Phe Ile Lys Thr Val Glu Ile Ile
      20             25             30

Leu Val Tyr Asn Gln Thr Gln Ser Pro Trp Tyr Pro Ile Val Pro Ser
      35             40             45

Lys Ser Leu Val Tyr Asn Asn Asn Thr Cys Phe Asp Cys Tyr His Leu
      50             55             60

Gln Arg Val Asp Cys Val Pro Ser Arg Asp His Ile Asn Gln Ser Met
      65             70             75             80

Val Leu Ala Ser Gly Asn Ser Ser Ser His Pro Val Ser Phe Ile Leu
      85             90             95

Leu Gly Ile Pro Gly Leu Glu Ser Phe Gln Leu Trp Ile Ala Phe Pro
      100            105            110

Phe Cys Ala Thr Tyr Ala Val Ala Val Val Gly Asn Ile Thr Leu Leu
      115            120            125

His Val Ile Arg Ile Asp His Thr Leu His Glu Pro Met Tyr Leu Phe
      130            135            140

Leu Ala Met Leu Ala Ile Thr Asp Leu Val Leu Ser Ser Ser Thr Gln
      145            150            155            160

Pro Lys Met Leu Ala Ile Phe Trp Phe His Ala His Glu Ile Gln Tyr
      165            170            175

His Ala Cys Leu Ile Gln Val Phe Phe Ile His Ala Phe Ser Ser Val
      180            185            190

```

Glu Ser Gly Val Leu Met Ala Met Ala Leu Asp Cys Tyr Val Ala Thr
 195 200 205
 Cys Phe Pro Leu Arg His Ser Ser Ile Leu Thr Pro Ser Val Val Ile
 210 215 220
 Lys Leu Gly Thr Ile Val Met Leu Arg Gly Leu Leu Trp Val Ser Pro
 225 230 235 240
 Phe Cys Phe Met Val Ser Arg Met Pro Phe Cys Gln His Gln Ala Ile
 245 250 255
 Pro Gln Ser Tyr Cys Glu His Met Ala Val Leu Lys Leu Val Cys Ala
 260 265 270
 Asp Thr Ser Ile Ser Arg Gly Tyr Gly Leu Phe Val Ala Phe Ser Val
 275 280 285
 Ala Gly Phe Asp Met Ile Val Ile Gly Met Ser Tyr Val Met Ile Leu
 290 295 300
 Arg Ala Val Leu Gln Leu Pro Ser Gly Glu Ala Arg Leu Lys Ala Phe
 305 310 315 320
 Ser Thr Arg Ala Ser His Ile Cys Val Ile Leu Ala Leu Tyr Ile Pro
 325 330 335
 Ala Leu Phe Ser Phe Leu Thr Tyr Arg Phe Gly His Asp Val Pro Arg
 340 345 350
 Val Val His Ile Leu Phe Ala Asn Leu Tyr Leu Leu Ile Pro Pro Met
 355 360 365
 Leu Asn Pro Ile Ile Tyr Gly Val Arg Thr Lys Gln Ile Gly Asp Arg
 370 375 380
 Val Ile Gln Gly Cys Cys Gly Asn Ile Pro
 385 390

<210> 342
 <211> 1185
 <212> DNA
 <213> Homo sapiens

<400> 342
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 ccctgggtatc caatagtccc atccaaaagc cttgtatata ataataacac ttgttttgat 180
 tggtatcatc tgcagagagt agattgcgtt cccagcagag accatattaa ccagtccatg 240
 gtgctggctt caggaacag ctcttctcat cctgtgtcct tcatcctgct tggaatccca 300
 ggcctggaga gttccagtt gtggattgcc tttccgttct gtgccacgta tgctgtggct 360
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 cctaagatgt tggccatatt ctggtttcat gctcatgaga ttcagtagca tgccctgcctc 540
 atccaggtgt tcttcatcca tgccttttct tctgtggagt ctggggtgct catggctatg 600

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gccctggact gctacgtggc tacctgcttc ccactccgac actctagcat cctgacccca 660
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ttctgcttca tgggtgtctag gatgcccttc tgccaacacc aagccattcc ccagtcatac 780
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agcacacgtg cctcccatat ctgtgtcatc ttggctcctt atatcccagc ccttttttct 1020
ttcctcacct accgctttgg ccatgatgtg ccccgagttg tacacatcct gtttgctaata 1080
ctctatctac tgatacctcc catgctcaac cccatcattt atggagttag aaccaaacag 1140
atcgggggaca gggttatcca aggatgttgt ggaaacatcc cctga 1185

```

<210> 343

<211> 311

<212> PRT

<213> Homo sapiens

<400> 343

```

Met Ser Asn Ala Ser Leu Val Thr Ala Phe Ile Leu Thr Gly Leu Pro
  1             5             10             15

```

```

His Ala Pro Gly Leu Asp Ala Leu Leu Phe Gly Ile Phe Leu Val Val
      20             25             30

```

```

Tyr Val Leu Thr Val Leu Gly Asn Leu Leu Ile Leu Leu Val Ile Arg
  35             40             45

```

```

Val Asp Ser His Leu His Thr Pro Met Tyr Tyr Phe Leu Thr Asn Leu
  50             55             60

```

```

Ser Phe Ile Asp Met Trp Phe Ser Thr Val Thr Val Pro Lys Met Leu
  65             70             75             80

```

```

Met Thr Leu Val Ser Pro Ser Gly Arg Ala Ile Ser Phe His Ser Cys
      85             90             95

```

```

Val Ala Gln Leu Tyr Phe Phe His Phe Leu Gly Ser Thr Glu Cys Phe
  100             105             110

```

```

Leu Tyr Thr Val Met Ser Tyr Asp Arg Tyr Leu Ala Ile Ser Tyr Pro
  115             120             125

```

```

Leu Arg Tyr Thr Ser Met Met Ser Gly Ser Arg Cys Ala Leu Leu Ala
  130             135             140

```

```

Thr Gly Thr Trp Leu Ser Gly Ser Leu His Ser Ala Val Gln Thr Ile
  145             150             155             160

```

```

Leu Thr Phe His Leu Pro Tyr Cys Gly Pro Asn Gln Ile Gln His Tyr
  165             170             175

```

```

Phe Cys Asp Ala Pro Pro Ile Leu Lys Leu Ala Cys Ala Asp Thr Ser
  180             185             190

```

```

Ala Asn Val Met Val Ile Phe Val Asp Ile Gly Ile Val Ala Ser Gly
  195             200             205

```


Cys Phe Val Leu Ile Val Leu Ser Tyr Val Ser Ile Val Cys Ser Ile
 210 215 220
 Leu Arg Ile Arg Thr Ser Asp Gly Arg Arg Arg Ala Phe Gln Thr Cys
 225 230 235 240
 Ala Ser His Cys Ile Val Val Leu Cys Phe Phe Val Pro Cys Val Val
 245 250 255
 Ile Tyr Leu Arg Pro Gly Ser Met Asp Ala Met Asp Gly Val Val Ala
 260 265 270
 Ile Phe Tyr Thr Val Leu Thr Pro Leu Leu Asn Pro Val Val Tyr Thr
 275 280 285
 Leu Arg Asn Lys Glu Val Lys Lys Ala Val Leu Lys Leu Arg Asp Lys
 290 295 300
 Val Ala His Pro Gln Arg Lys
 305 310

<210> 344
 <211> 936
 <212> DNA
 <213> Homo sapiens

<400> 344
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 ctggacgccc tcctcttttg aatcttcctg gtgggtttacg tgctcactgt gctggggaac 120
 ctctcatccc tgctggtgat cagggtggat tctcacctcc acacccccat gtactacttc 180
 ctcaccaacc tgtccttcat tgacatgtgg ttctccactg tcacggtgcc caaaatgctg 240
 atgaccttgg tgtccccaag cggcagggct atctccttcc acagctgcgt ggctcagctc 300
 tattttttcc acttctctgg gagcaccgag tgtttctctc acacagtcac gtcctatgat 360
 cgctacttgg ccacacagta cccgctcagg tacaccagca tgatgagtgg gagcaggtgt 420
 gccctcctgg ccaccggcac ttggctcagt ggctctctgc actctgctgt ccagaccata 480
 ttgactttcc atttgcccta ctgtggaccc aaccagatcc agcactactt ctgtgacgca 540
 ccgcccaccc tgaaactggc ctgtgcagac acctcagcca acgtgatggc catcttttgtg 600
 gacattggga tagtggcctc aggtgctttt gtctgtagat tgctgtccta tgtgtccatc 660
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 gccctccact gtatttgtgt cctttgcttc tttgttccct gtgttgtcat ttatctgagg 780
 ccaggctcca tggatgccat ggatggagtt gtggccattt tctacactgt gctgacgccc 840
 cttctcaacc ctgttgtgta caccctgaga aacaaggagg tgaagaaagc tgtgttgaaa 900
 cttagagaca aagtagcaca tcctcagagg aaataa 936

<210> 345
 <211> 335
 <212> PRT
 <213> Homo sapiens

<400> 345
 Met Ala Gln Val Arg Ala Leu His Lys Ile Met Ala Leu Phe Ser Ala
 1 5 10 15
 Asn Ser Ile Gly Ala Met Asn Asn Ser Asp Thr Arg Ile Ala Gly Cys
 20 25 30

Phe Leu Thr Gly Ile Pro Gly Leu Glu Gln Leu His Ile Trp Leu Ser
35 40 45
Ile Pro Phe Cys Ile Met Tyr Ile Ala Ala Leu Glu Gly Asn Gly Ile
50 55 60
Leu Ile Cys Val Ile Leu Ser Gln Ala Ile Leu His Glu Pro Met Tyr
65 70 75 80
Ile Phe Leu Ser Met Leu Ala Ser Ala Asp Val Leu Leu Ser Thr Thr
85 90 95
Thr Met Pro Lys Ala Leu Ala Asn Leu Trp Leu Gly Tyr Ser His Ile
100 105 110
Ser Phe Asp Gly Cys Leu Thr Gln Lys Phe Phe Ile His Phe Leu Phe
115 120 125
Ile His Ser Ala Val Leu Leu Ala Met Ala Phe Asp Arg Tyr Val Ala
130 135 140
Ile Cys Ser Pro Leu Arg Tyr Val Thr Ile Leu Thr Ser Lys Val Ile
145 150 155 160
Gly Lys Ile Val Thr Ala Thr Leu Ser Arg Ser Phe Ile Ile Met Phe
165 170 175
Pro Ser Ile Phe Leu Leu Glu His Leu His Tyr Cys Gln Ile Asn Ile
180 185 190
Ile Ala His Thr Phe Cys Glu His Met Gly Ile Ala His Leu Ser Cys
195 200 205
Ser Asp Ile Ser Ile Asn Val Trp Tyr Gly Leu Ala Ala Ala Leu Leu
210 215 220
Ser Thr Gly Leu Asp Ile Met Leu Ile Thr Val Ser Tyr Ile His Ile
225 230 235 240
Leu Gln Ala Val Phe Arg Leu Leu Ser Gln Asp Ala Arg Ser Lys Ala
245 250 255
Leu Ser Thr Cys Gly Ser His Ile Cys Val Ile Leu Leu Phe Tyr Val
260 265 270
Pro Ala Leu Phe Ser Val Phe Ala Tyr Arg Phe Gly Gly Arg Ser Ile
275 280 285
Pro Cys Tyr Val His Ile Leu Leu Ala Ser Leu Tyr Val Val Ile Pro
290 295 300
Pro Met Leu Asn Pro Val Ile Tyr Gly Val Arg Thr Lys Pro Ile Leu
305 310 315 320
Glu Gly Ala Lys Gln Met Phe Ser Asn Leu Ala Lys Gly Ser Lys
325 330 335

<210> 346
 <211> 1008
 <212> DNA
 <213> Homo sapiens

<400> 346
 atggcacagg tgagggcgct gcataaaatc atggcccttt tttctgctaa cagcataggt 60
 gctatgaaca actctgacac tcgcatagca ggctgcttcc tcaactggcat ccctgggctg 120
 gagcaactac atatctggct gtccatcccc ttctgcatca tgtacatcgc tgccctggaa 180
 ggcaatggca tcctaatttg tgtcatcctc tcccaggcaa tcctgcatga gcccatgtac 240
 atattcttat ctatgctggc cagtgtgat gtcttgctct ctaccaccac catgcctaag 300
 gccctggcca atttgtggct aggttatagc cacatttcct ttgatggctg cctcactcaa 360
 aagttcttca ttcacttcct cttcattcac tctgctgtcc tgctggccat ggcccttgac 420
 cgctatgtgg ccatctgctc cccctgcca tatgtcaca tcctcacaag caaggctcatt 480
 gggaagatcg tcaactgccac cctgagccgc agcttcatca ttatgtttcc atccatcttt 540
 ctcccttgagc acctgcacta ttgccagatc aacatcattg cacacacatt ttgtgagcac 600
 atggggcattg cccatctgtc ctgttctgat atctccatca atgtctggta tgggttggca 660
 gctgctcttc tctccacagg cctggacatc atgcttatta ctgtttccta catccacatc 720
 ctccaagcag tcttccgcct cctttctcaa gatgcccgct ccaaggccct gagtacctgt 780
 ggatcccata tctgtgtcat cctactcttc tatgtccctg cccttttttc tgtctttgcc 840
 tacaggtttg gtgggagaag catcccatgc tatgtccata ttctcctggc cagcctctac 900
 gttgtcattc ctccatgct caatcccggt atttatggag tgaggactaa gccaatactg 960
 gaaggggcta agcagatgtt ttcaaattct gccaaaggat ctaaataa 1008

<210> 347
 <211> 428
 <212> PRT
 <213> Homo sapiens

<400> 347
 Met Phe Pro Ser Leu Cys Pro Cys Val Leu Leu Val Gln Leu Pro Leu
 1 5 10 15
 Met Asn Glu Asn Met Gln Cys Phe Val Phe Cys Ser Cys Asp Ser Leu
 20 25 30
 Leu Arg Met Met Val Ser Arg Phe Ile His Val Pro Phe Val Lys Met
 35 40 45
 Lys Arg Ile Ile Val Gly Gly Tyr Ser Lys His Phe Phe Ser Asn Glu
 50 55 60
 Leu Leu Cys Val Arg Pro Trp Ser Gly Lys Thr Trp Ser Ile Arg His
 65 70 75 80
 His Ile Phe Asp Met Glu Leu Leu Thr Asn Asn Leu Lys Phe Ile Thr
 85 90 95
 Asp Pro Phe Val Cys Arg Leu Arg His Leu Ser Pro Thr Pro Ser Glu
 100 105 110
 Glu His Met Lys Asn Lys Asn Asn Val Thr Glu Phe Ile Leu Leu Gly
 115 120 125

Leu Thr Gln Asn Pro Glu Gly Gln Lys Val Leu Phe Val Thr Phe Leu
 130 135 140
 Leu Ile Tyr Met Val Thr Ile Met Gly Asn Leu Leu Ile Ile Val Thr
 145 150 155 160
 Ile Met Ala Ser Gln Ser Leu Gly Ser Pro Met Tyr Phe Phe Leu Ala
 165 170 175
 Ser Leu Ser Phe Ile Asp Thr Val Tyr Ser Thr Ala Phe Ala Pro Lys
 180 185 190
 Met Ile Val Asp Leu Leu Ser Glu Lys Lys Thr Ile Ser Phe Gln Gly
 195 200 205
 Cys Met Ala Gln Leu Phe Met Asp His Leu Phe Ala Gly Ala Glu Val
 210 215 220
 Ile Leu Leu Val Val Met Ala Tyr Asp Arg Tyr Met Ala Ile Cys Lys
 225 230 235 240
 Pro Leu His Glu Leu Ile Thr Met Asn Arg Arg Val Cys Val Leu Met
 245 250 255
 Leu Leu Ala Ala Trp Ile Gly Gly Phe Leu His Ser Leu Val Gln Phe
 260 265 270
 Leu Phe Ile Tyr Gln Leu Pro Phe Cys Gly Pro Asn Val Ile Asp Asn
 275 280 285
 Phe Leu Cys Asp Leu Tyr Pro Leu Leu Lys Leu Ala Cys Thr Asn Thr
 290 295 300
 Tyr Val Thr Gly Leu Ser Met Ile Ala Asn Gly Gly Ala Ile Cys Ala
 305 310 315 320
 Val Thr Phe Phe Thr Ile Leu Leu Ser Tyr Gly Val Ile Leu His Ser
 325 330 335
 Leu Lys Thr Gln Ser Leu Glu Gly Lys Arg Lys Ala Phe Tyr Thr Cys
 340 345 350
 Ala Ser His Val Thr Val Val Ile Leu Phe Phe Val Pro Cys Ile Phe
 355 360 365
 Leu Tyr Ala Arg Pro Asn Ser Thr Phe Pro Ile Asp Lys Ser Met Thr
 370 375 380
 Val Val Leu Thr Phe Ile Thr Pro Met Leu Asn Pro Leu Ile Tyr Thr
 385 390 395 400
 Leu Lys Asn Ala Glu Met Lys Ser Ala Met Arg Lys Leu Trp Ser Lys
 405 410 415
 Lys Val Ser Leu Ala Gly Lys Trp Leu Tyr His Ser
 420 425

<210> 348
 <211> 1287
 <212> DNA
 <213> Homo sapiens

<400> 348
 atgttccccct ccctgtgtcc atgtgttctc cttgttcaac tcccacttat gaatgagaac 60
 atgcagtgtt ttgttttctg ttcttgtgat agtttgtctga gaatgatggg ttcccgtctc 120
 atccatgtcc catttgtaaa aatgaaaagg ataattgtgg gaggatattc taaacacttc 180
 ttttctaatag agctgctctg tgtgaggccc tggtcaggga aaacgtgggc gataaggcat 240
 cacatttttg acatggagct tctgacaaat aatctcaaat ttatcactga cccttttggt 300
 tgtaggctcc gacacctgag tccaacacct tcagaagaac acatgaaaaa taagaacaat 360
 gtgactgaat ttatcctctt agggctcaca cagaaccctg aggggcaaaa gggttttattt 420
 gtcacattct tactaatcta catgggtgacg ataatgggca acctgcttat catagtgacc 480
 atcatggcca gccagtccct ggggtccccc atgtactttt ttctggcttc tttatcattc 540
 atagataccg tctattctac tgcatttgc tccaaaatga ttgttgactt gctctctgag 600
 aaaaagacca tttcctttca ggggtgtatg gctcaacttt ttatggatca tttatttgct 660
 ggtgctgaag tcattcttct ggtggtaatg gcctatgatc gatacatggc catctgtaag 720
 cctcttcacg aattgatcac catgaatcgt cgagtctgtg ttcttatgct gttggcgggc 780
 tggattggag gctttcttca ctcattgggt caatttctct ttatttatca gctccctttc 840
 tgtggaccca atgtcattga caacttctct tgtgatttgt atcccttatt gaaacttgct 900
 tgcaccaata cctatgtcac tgggctttct atgatagcta atggaggagc gatttgtgct 960
 gtcaccttct tctactatct gctttcctat ggggtcatat tacactctct taagactcag 1020
 agtttggaag ggaaacgaaa agctttctac acctgtgcat cccacgtcac tgtggtcatt 1080
 ttattctttg tcccctgtat cttcttgtat gcaaggccca attctacttt tcccattgat 1140
 aaatccatga ctgtagttct aacttttata actcccatgc tgaaccctact aatctatacc 1200
 ctgaagaatg cagaaatgaa aagtgccatg aggaaacttt ggagtaaaaa agtaagctta 1260
 gctgggaaat ggctgtatca ctcatga 1287

<210> 349
 <211> 298
 <212> PRT
 <213> Homo sapiens

<400> 349
 Met Gln Gln Asn Asn Ser Val Pro Glu Phe Ile Leu Leu Gly Leu Thr
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 Gln Asp Pro Leu Arg Gln Lys Ile Val Phe Val Ile Phe Leu Ile Phe
 20 25 30
 Tyr Met Gly Thr Val Val Gly Asn Met Leu Ile Ile Val Thr Ile Lys
 35 40 45
 Ser Ser Arg Thr Leu Gly Ser Pro Met Tyr Phe Phe Leu Phe Tyr Leu
 50 55 60
 Ser Phe Ala Asp Ser Cys Phe Ser Thr Ser Thr Ala Pro Arg Leu Ile
 65 70 75 80
 Val Asp Ala Leu Ser Glu Lys Lys Ile Ile Thr Tyr Asn Glu Cys Met
 85 90 95
 Thr Gln Val Phe Ala Leu His Leu Phe Gly Cys Met Glu Ile Phe Val
 100 105 110

Leu Ile Leu Met Ala Val Asp Arg Tyr Val Ala Ile Cys Lys Pro Leu
 115 125
 Arg Tyr Pro Thr Ile Met Ser Gln Gln Val Cys Ile Ile Leu Ile Val
 130 135 140
 Leu Ala Trp Ile Gly Ser Leu Ile His Ser Thr Ala Gln Ile Ile Leu
 145 150 155 160
 Ala Leu Arg Leu Pro Phe Cys Gly Pro Tyr Leu Ile Asp His Tyr Cys
 165 170 175
 Cys Asp Leu Gln Pro Leu Leu Lys Leu Ala Cys Met Asp Thr Tyr Met
 180 185 190
 Ile Asn Leu Leu Leu Val Ser Asn Ser Gly Ala Ile Cys Ser Ser Ser
 195 200 205
 Phe Met Ile Leu Ile Ile Ser Tyr Ile Val Ile Leu His Ser Leu Arg
 210 215 220
 Asn His Ser Ala Lys Gly Lys Lys Lys Ala Leu Ser Ala Cys Thr Ser
 225 230 235 240
 His Ile Ile Val Val Ile Leu Phe Phe Gly Pro Cys Ile Phe Ile Tyr
 245 250 255
 Thr Arg Pro Pro Thr Thr Phe Pro Met Asp Lys Met Val Ala Val Phe
 260 265 270
 Tyr Thr Ile Gly Thr Pro Phe Leu Asn Pro Leu Ile Tyr Thr Ser Glu
 275 280 285
 Glu Cys Arg Ser Glu Lys Cys His Glu Lys
 290 295

<210> 350
 <211> 895
 <212> DNA
 <213> Homo sapiens

<400> 350
 atgcagcaaaa ataacagtgt gcctgaattc ataactgtag gattaacaca ggatcccttg 60
 aggcagaaaa tagtgtttgt aatcttctta attttctata tgggaactgt ggtggggaat 120
 atgctcatta ttgtgaccat caagtccagc cggacactag gaagcccat gtacttcttt 180
 ctatttttatt tgtccttttg agattcttgc ttttcaactt ccacagcccc tagattaatt 240
 gtggatgctc tctctgaaaa gaaaattata acctacaatg agtgcacatg acaagtcttt 300
 gcactacatt tatttggttg catggagatc tttgtcctca ttctcatggc tgttgatcgc 360
 tatgtggcca tctgtaagcc cttgcgttac ccaaccatca tgagccagca ggtctgcac 420
 atcctgattg ttcttgcttg gatagggtct ttaatacact ctacagctca gattatcctg 480
 gccttaagat tgccttttctg tggaccctat ttgattgac attattgctg tgatttgacg 540
 cccttggttg aacttgcttg catggacact tacatgatca acctgctgtt ggtgtctaac 600
 agtggggcaa tttgctcaag tagtttcatg attttgataa tttcatatat tgtcatcttg 660
 cattcactga gaaaccacag tgccaaagg aagaaaaagg ctctctccgc ttgcacgtct 720
 cacataattg tagtcatctt attctttggc ccatgtatat tcatatatac acgccccccg 780

accactttcc ccatggacaa gatggtggca gtattttata ctattggaac accctttctc 840
aatccactca tctacacatc tgaggaatgc agaagtgaaa aatgccatga gaaag 895

<210> 351
<211> 306
<212> PRT
<213> Homo sapiens

<400> 351
Met Gln Arg Ser Asn His Thr Val Thr Glu Phe Ile Leu Leu Gly Phe
1 5 10 15
Thr Thr Asp Pro Gly Met Gln Leu Gly Leu Phe Val Val Phe Leu Gly
20 25 30
Val Tyr Cys Leu Thr Val Val Gly Ser Ser Thr Leu Ile Val Leu Ile
35 40 45
Cys Asn Asp Ser Arg Leu His Thr Pro Met Tyr Phe Val Ile Gly Asn
50 55 60
Leu Ser Phe Leu Asp Leu Trp Tyr Ser Ser Val His Thr Pro Lys Ile
65 70 75 80
Leu Val Thr Cys Ile Ser Glu Asp Lys Ser Ile Ser Phe Ala Gly Cys
85 90 95
Leu Cys Gln Phe Phe Ser Ala Arg Leu Ala Tyr Ser Glu Cys Tyr Leu
100 105 110
Leu Ala Ala Met Ala Tyr Asp His Tyr Val Ala Ile Ser Lys Pro Leu
115 120 125
Leu Tyr Ala Gln Thr Met Pro Arg Arg Leu Cys Ile Cys Leu Val Leu
130 135 140
Tyr Ser Tyr Thr Gly Gly Phe Val Asn Ala Ile Ile Leu Thr Ser Asn
145 150 155 160
Thr Phe Thr Leu Asp Phe Cys Gly Asp Asn Val Ile Asp Asp Phe Phe
165 170 175
Cys Asp Val Pro Pro Leu Val Lys Leu Ala Cys Ser Val Arg Glu Ser
180 185 190
Tyr Gln Ala Val Leu His Phe Leu Leu Ala Ser Asn Val Ile Ser Pro
195 200 205
Thr Val Leu Ile Leu Ala Ser Tyr Leu Ser Ile Ile Thr Thr Ile Leu
210 215 220
Arg Ile His Ser Thr Gln Gly Arg Ile Lys Val Phe Ser Thr Cys Ser
225 230 235 240
Ser His Leu Ile Ser Val Thr Leu Tyr Tyr Gly Ser Ile Leu Tyr Asn
245 250 255

Tyr Ser Arg Pro Ser Ser Ser Tyr Ser Leu Lys Arg Asp Lys Met Val
 260 265 270
 Ser Thr Phe Tyr Thr Met Leu Phe Pro Met Leu Asn Pro Met Ile Tyr
 275 280 285
 Ser Leu Arg Ser Lys Asp Met Lys Asp Ala Leu Lys Lys Phe Phe Lys
 290 295 300
 Ser Ala
 305

<210> 352
 <211> 921
 <212> DNA
 <213> Homo sapiens

<400> 352
 atgcagagga gcaatcacac agtgactgag ttcatacctgc tgggcttcac cacagatcca 60
 gggatgcaac tgggcctctt tgtggtgttc ctgggtgtgt actgtctgac tgtggtagga 120
 agtagcacc tcacgtgtgt gatctgtaat gactcccgcc tacacacacc catgtatttt 180
 gtcattggaa atctgtcatt tctggatctc tgggtattctt ctgtccacac cccaaagatc 240
 ctagtgacct gcatctctga agacaaaagc atctcctttg ctggctgcct gtgtcagttc 300
 ttctctgcca ggctggccta tagtgagtgc tacctactgg ctgccatggc ttatgaccac 360
 tacgtggcca tctccaagcc cctgctttat gctcagacca tgccaaggag attgtgcatc 420
 tgtttggttt tatattccta tactgggggt tttgtcaatg caataatatt aaccagcaac 480
 acattcacat tggatttttg tggtgacaat gtcattgatg actttttctg tgatgttcca 540
 ccctcgtga agctggcatg cagtgtgaga gagagctacc aggctgtgct gcacttcctt 600
 ctggcctcca atgtcatctc ccctactgtg ctcatccttg cctcttacct ctccatcatc 660
 accaccatcc tgaggatcca ctctaccag ggccgcatca aagtcttctc cacatgctcc 720
 tcccacctga tctccgttac cttatactat ggctccattc tctacaacta ctcccggcca 780
 agttccagct actccctcaa gagggacaaa atgggtttcta ccttttatac tatgtctgtc 840
 cccatgttga atcccatgat ctacagtctg aggagtaaag acatgaaaga cgctctgaaa 900
 aaattcttca agtcagcata a 921

<210> 353
 <211> 311
 <212> PRT
 <213> Homo sapiens

<400> 353
 Met Thr Gly Gly Gly Asn Ile Thr Glu Ile Thr Tyr Phe Ile Leu Leu
 1 5 10 15
 Gly Phe Ser Asp Phe Pro Arg Ile Ile Lys Val Leu Phe Thr Ile Phe
 20 25 30
 Leu Val Ile Tyr Ile Thr Ser Leu Ala Trp Asn Leu Ser Leu Ile Val
 35 40 45
 Leu Ile Arg Met Asp Ser His Leu His Thr Pro Met Tyr Phe Phe Leu
 50 55 60
 Ser Asn Leu Ser Phe Ile Asp Val Cys Tyr Ile Ser Ser Thr Val Pro

65	70	75	80
Lys Met Leu Ser Asn Leu Leu Gln Glu Gln Gln Thr Ile Thr Phe Val	85	90	95
Gly Cys Ile Ile Gln Tyr Phe Ile Phe Ser Thr Met Gly Leu Ser Glu	100	105	110
Ser Cys Leu Met Thr Ala Met Ala Tyr Asp Arg Tyr Ala Ala Ile Cys	115	120	125
Asn Pro Leu Leu Tyr Ser Ser Ile Met Ser Pro Thr Leu Cys Val Trp	130	135	140
Met Val Leu Gly Ala Tyr Met Thr Gly Leu Thr Ala Ser Leu Phe Gln	145	150	155
Ile Gly Ala Leu Leu Gln Leu His Phe Cys Gly Ser Asn Val Ile Arg	165	170	175
His Phe Phe Cys Asp Met Pro Gln Leu Leu Ile Leu Ser Cys Thr Asp	180	185	190
Thr Phe Phe Val Gln Val Met Thr Ala Ile Leu Thr Met Phe Phe Gly	195	200	205
Ile Ala Ser Ala Leu Val Ile Met Ile Ser Tyr Gly Tyr Ile Gly Ile	210	215	220
Ser Ile Met Lys Ile Thr Ser Ala Lys Gly Ser Pro Lys Ala Phe Asn	225	230	235
Thr Cys Ala Ser His Leu Thr Ala Val Ser Leu Phe Tyr Thr Ser Gly	245	250	255
Ile Phe Val Tyr Leu Arg Ser Ser Ser Gly Gly Ser Ser Ser Phe Asp	260	265	270
Arg Phe Ala Ser Val Phe Tyr Thr Val Val Ile Pro Met Leu Asn Pro	275	280	285
Leu Ile Tyr Ser Leu Arg Asn Lys Glu Ile Lys Asp Ala Leu Lys Arg	290	295	300
Leu Gln Lys Arg Lys Cys Cys	305	310	

<210> 354

<211> 936

<212> DNA

<213> Homo sapiens

<400> 354

atgactgggg gaggaatat tacagaaatc acctatttca tcctgctggg attctcagat 60
 tttcccagga tcataaaagt gctcttcaact atattcctgg tgatctacat tacatctctg 120
 gcctggaacc tctccctcat tgttttaata aggatggatt cccacctcca tacacccatg 180

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tatttcttcc tcagtaacct gtccttcata gatgtctgct atatcagctc cacagtcccc 240
aagatgctct ccaacctctt acaggaacag caaactatca cttttgttgg ttgtattatt 300
cagtacttta tcttttcaac gatgggactg agtgagtctt gtctcatgac agccatggct 360
tatgatcggt atgctgccat ttgtaacccc ctgctctatt catccatcat gtcacccacc 420
ctctgtgttt ggatggtact gggagcctac atgactggcc tcaactgcttc tttattccaa 480
attggtgctt tgcttcaact ccacttctgt ggggtctaag tcatcagaca tttcttctgt 540
gacatgcccc aactgttaat cttgtcctgt actgacactt tctttgtaca ggtcatgact 600
gctatattaa ccatgttctt tgggatagca agtgccctag ttatcatgat atcctatggc 660
tatattggca tctccatcat gaagatcact tcagctaaag gcagtccaaa ggcattcaac 720
acctgtgctt ctcatctaac agctgtttcc ctcttctata catcaggaat ctttgtctat 780
ttgaggcca gctctggagg ttcttcaagc tttgacagat ttgcatctgt tttctacact 840
gtggtcattc ccatgttaaa tcccttgatt tacagtttga ggaacaaaga aattaaagat 900
gccttaaaga ggttgcaaaa gagaaagtgc tgctga 936

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<210> 355

<211> 314

<212> PRT

<213> Homo sapiens

<400> 355

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Met Glu Asn Asn Thr Glu Val Thr Glu Phe Ile Leu Val Gly Leu Thr
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Asp Asp Pro Glu Leu Gln Ile Pro Leu Phe Ile Val Phe Leu Phe Ile
      20              25              30

Tyr Leu Ile Thr Leu Val Gly Asn Leu Gly Met Ile Glu Leu Ile Leu
      35              40              45

Leu Asp Ser Cys Leu His Thr Pro Met Tyr Phe Phe Leu Ser Asn Leu
      50              55              60

Ser Leu Val Asp Phe Gly Tyr Ser Ser Ala Val Thr Pro Lys Val Met
      65              70              75              80

Val Gly Phe Leu Thr Gly Asp Lys Phe Ile Leu Tyr Asn Ala Cys Ala
      85              90              95

Thr Gln Phe Phe Phe Phe Val Ala Phe Ile Thr Ala Glu Ser Phe Leu
      100              105              110

Leu Ala Ser Met Ala Tyr Asp Arg Tyr Ala Ala Leu Cys Lys Pro Leu
      115              120              125

His Tyr Thr Thr Thr Met Thr Thr Asn Val Cys Ala Cys Leu Ala Ile
      130              135              140

Gly Ser Tyr Ile Cys Gly Phe Leu Asn Ala Ser Ile His Thr Gly Asn
      145              150              155              160

Thr Phe Arg Leu Ser Phe Cys Arg Ser Asn Val Val Glu His Phe Phe
      165              170              175

Cys Asp Ala Pro Pro Leu Leu Thr Leu Ser Cys Ser Asp Asn Tyr Ile
      180              185              190

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Ser Glu Met Val Ile Phe Phe Val Val Gly Phe Asn Asp Leu Phe Ser
 195 200 205
 Ile Leu Val Ile Leu Ile Ser Tyr Leu Phe Ile Phe Ile Thr Ile Met
 210 215 220
 Lys Met Arg Ser Pro Glu Gly Arg Gln Lys Ala Phe Ser Thr Cys Ala
 225 230 235 240
 Ser His Leu Thr Ala Val Ser Ile Phe Tyr Gly Thr Gly Ile Phe Met
 245 250 255
 Tyr Leu Arg Pro Asn Ser Ser His Phe Met Gly Thr Asp Lys Met Ala
 260 265 270
 Ser Val Phe Tyr Ala Ile Val Ile Pro Met Leu Asn Pro Leu Val Tyr
 275 280 285
 Ser Leu Arg Asn Lys Glu Val Lys Ser Ala Phe Lys Lys Thr Val Gly
 290 295 300
 Lys Ala Lys Ala Ser Ile Gly Phe Ile Phe
 305 310

<210> 356
 <211> 945
 <212> DNA
 <213> Homo sapiens

<400> 356
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 ctgcagatcc cactcttcat agtcttccctt ttcattctacc tcatcactct gggtgggaac 120
 ctgggggatga ttgaattgat tctactggac tctgtctcc acacccccat gtacttcttc 180
 ctcagtaacc tctccctggt ggactttggt tattcctcag ctgtcactcc caaggtgatg 240
 gtgggggtttc tcacaggaga caaattcata ttatataatg cttgtgccac acaattcttc 300
 ttctttgtag cctttatcac tgcagaaagt ttccctcctgg catcaatggc ctatgaccgc 360
 tatgcagcat tgtgtaaacc cctgcattac accaccacca tgacaacaaa tgtatgtgct 420
 tgcctggcca taggtccta catctgtggt ttccctgaatg catccattca tactgggaac 480
 actttcaggc tctccttctg tagatccaat gtagtgaac actttttctg tgatgctcct 540
 cctctcttga ctctctcatg ttcagacaac tacatcagt agatgggttat tttttttgtg 600
 gtgggattca atgacctctt ttctatcctg gtaatcttga tctcctactt atttatattt 660
 atcaccatca tgaagatgcg ctcacctgaa ggacgccaga aggccttttc tacttgtgct 720
 tcccacctta ctgcagtttc catcttttat gggacaggaa tctttatgta cttacgacct 780
 aactccagcc atttcatggg cacagacaaa atggcatctg tgttctatgc catagtcat 840
 cccatgttga atccactggt ctacagcctg aggaacaaag aggttaagag tgcctttaaa 900
 aagactgtag ggaaggcaaa ggcctctata ggattcatat tttaa 945

<210> 357
 <211> 314
 <212> PRT
 <213> Homo sapiens

<400> 357
 Met Glu Asn Lys Thr Glu Val Thr Gln Phe Ile Leu Leu Gly Leu Thr
 1 5 10 15

Asn	Asp	Ser	Glu	Leu	Gln	Val	Pro	Leu	Phe	Ile	Thr	Phe	Pro	Phe	Ile	20	25	30
Tyr	Ile	Ile	Thr	Leu	Val	Gly	Asn	Leu	Gly	Ile	Ile	Val	Leu	Ile	Phe	35	40	45
Trp	Asp	Ser	Cys	Leu	His	Asn	Pro	Met	Tyr	Phe	Phe	Leu	Ser	Asn	Leu	50	55	60
Ser	Leu	Val	Asp	Phe	Cys	Tyr	Ser	Ser	Ala	Val	Thr	Pro	Ile	Val	Met	65	70	75
Ala	Gly	Phe	Leu	Ile	Glu	Asp	Lys	Val	Ile	Ser	Tyr	Asn	Ala	Cys	Ala	85	90	95
Ala	Gln	Met	Tyr	Ile	Phe	Val	Ala	Phe	Ala	Thr	Val	Glu	Asn	Tyr	Leu	100	105	110
Leu	Ala	Ser	Met	Ala	Tyr	Asp	Arg	Tyr	Ala	Ala	Val	Cys	Lys	Pro	Leu	115	120	125
His	Tyr	Thr	Thr	Thr	Met	Thr	Thr	Thr	Val	Cys	Ala	Arg	Leu	Ala	Ile	130	135	140
Gly	Ser	Tyr	Leu	Cys	Gly	Phe	Leu	Asn	Ala	Ser	Ile	His	Thr	Gly	Asp	145	150	155
Thr	Phe	Ser	Leu	Ser	Phe	Cys	Lys	Ser	Asn	Glu	Val	His	His	Phe	Phe	165	170	175
Cys	Asp	Ile	Pro	Ala	Val	Met	Val	Leu	Ser	Cys	Ser	Asp	Arg	His	Ile	180	185	190
Ser	Glu	Leu	Val	Leu	Ile	Tyr	Val	Val	Ser	Phe	Asn	Ile	Phe	Ile	Ala	195	200	205
Leu	Leu	Val	Ile	Leu	Ile	Ser	Tyr	Thr	Phe	Ile	Phe	Ile	Thr	Ile	Leu	210	215	220
Lys	Met	His	Ser	Ala	Ser	Val	Tyr	Gln	Lys	Pro	Leu	Ser	Thr	Cys	Ala	225	230	235
Ser	His	Phe	Ile	Ala	Val	Gly	Ile	Phe	Tyr	Gly	Thr	Ile	Ile	Phe	Met	245	250	255
Tyr	Leu	Gln	Pro	Ser	Ser	Ser	His	Ser	Met	Asp	Thr	Asp	Lys	Met	Ala	260	265	270
Pro	Val	Phe	Tyr	Thr	Met	Val	Ile	Pro	Met	Leu	Asn	Pro	Leu	Val	Tyr	275	280	285
Ser	Leu	Arg	Asn	Lys	Glu	Val	Lys	Ser	Ala	Phe	Lys	Lys	Val	Val	Glu	290	295	300
Lys	Ala	Lys	Leu	Ser	Val	Gly	Trp	Ser	Val							305	310	

<210> 358
 <211> 945
 <212> DNA
 <213> Homo sapiens

<400> 358
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 ctgggaatta ttgtattgat attctgggat tcctgtctcc acaatcccat gtactttttt 180
 ctcagtaact tgtctctagt ggacttttgc tactcttcag ctgtcactcc catcgtcatt 240
 gctggattcc ttatagaaga caagggtcatc tcttacaatg catgtgctgc tcaaattgat 300
 atctttgtag cttttgccac tgtggaaaat tacctcttgg cctcaatggc ctatgaccgc 360
 tatgcagcag tgtgcaaacc cctacattac accacaacca tgacaacaac tgtgtgtgct 420
 cgtctggcca taggctccta cctctgtggg ttcttgaatg cctccatcca cactggggac 480
 acatttagtc tctctttctg taagtccaat gaagtccatc actttttctg tgatattcca 540
 gcagtcattg ttctctcttg ctctgataga catattagcg agcttggtct tatttatgtt 600
 gtgagcttca atatctttat agctctctctg gttatcttga taccctacac attcattttt 660
 atcaccatcc taaagatgca ctcagcttca gtataccaga agcctttgtc cacctgtgcc 720
 tctcatttca ttgcagtcgg catcttctat gggactatta tcttcatgta cttacaaccc 780
 agctccagtc actccatgga cacagacaaa atggcacctg tgttctatac aatgggtcatc 840
 cccatgctga accctctggg ctatagtctg aggaacaagg aagtgaagag tgcattcaag 900
 aaagttgttg agaaggcaaa attgtctgta ggatggtcag ttttaa 945

<210> 359
 <211> 314
 <212> PRT
 <213> Homo sapiens

<400> 359
 Met Glu Arg Gln Asn Gln Ser Cys Val Val Glu Phe Ile Leu Leu Gly
 1 5 10 15
 Phe Ser Asn Tyr Pro Glu Leu Gln Gly Gln Leu Phe Val Ala Phe Leu
 20 25 30
 Val Ile Tyr Leu Val Thr Leu Ile Gly Asn Ala Ile Ile Ile Val Ile
 35 40 45
 Val Ser Leu Asp Gln Ser Leu His Val Pro Met Tyr Leu Phe Leu Leu
 50 55 60
 Asn Leu Ser Val Val Asp Leu Ser Phe Ser Ala Val Ile Met Pro Glu
 65 70 75 80
 Met Leu Val Val Leu Ser Thr Glu Lys Thr Thr Ile Ser Phe Gly Gly
 85 90 95
 Cys Phe Ala Gln Met Tyr Phe Ile Leu Leu Phe Gly Gly Ala Glu Cys
 100 105 110
 Phe Leu Leu Gly Ala Met Ala Tyr Asp Arg Phe Ala Ala Ile Cys His
 115 120 125
 Pro Leu Asn Tyr Gln Met Ile Met Asn Lys Gly Val Phe Met Lys Leu

130		135		140
Ile Ile Phe Ser Trp	Ala Leu Gly Phe Met Leu Gly Thr Val Gln Thr			
145	150	155		160
Ser Trp Val Ser Ser	Phe Pro Phe Cys Gly Leu Asn Glu Ile Asn His			
	165	170		175
Ile Ser Cys Glu Thr	Pro Ala Val Leu Glu Leu Ala Cys Ala Asp Thr			
	180	185		190
Phe Leu Phe Glu Ile Tyr	Ala Phe Thr Gly Thr Phe Leu Ile Ile Leu			
	195	200		205
Val Pro Phe Leu Leu Ile	Leu Leu Ser Tyr Ile Arg Val Leu Phe Ala			
	210	215		220
Ile Leu Lys Met Pro	Ser Thr Thr Gly Arg Gln Lys Ala Phe Ser Thr			
225	230	235		240
Cys Ala Ala His Leu Thr	Ser Val Thr Leu Phe Tyr Gly Thr Ala Ser			
	245	250		255
Met Thr Tyr Leu Gln Pro	Lys Ser Gly Tyr Ser Pro Glu Thr Lys Lys			
	260	265		270
Val Met Ser Leu Ser Tyr	Ser Leu Leu Thr Pro Leu Leu Asn Leu Leu			
	275	280		285
Ile Tyr Ser Leu Arg Asn	Ser Glu Met Lys Arg Ala Leu Met Lys Leu			
	290	295		300
Trp Arg Arg Arg Val	Val Leu His Thr Ile			
305	310			

<210> 360

<211> 945

<212> DNA

<213> Homo sapiens

<400> 360

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cctgagctcc	aggggcagct	ctttgtgggt	ttcctgggta	tttatctggg	gaccctgata	120
ggaaatgcca	ttattatagt	catcgtctcc	ctagaccaga	gcctccacgt	tcccatgtac	180
ctgtttctcc	tgaacttata	tgtgggtggac	ctgagtttca	gtgcagttat	tatgcctgaa	240
atgctgggtg	tcctctctac	tgaaaaaact	acaatttctt	ttgggggctg	ttttgcacag	300
atgtatttca	tccttctttt	tgggtggggct	gaatgttttc	ttctggggagc	aatggcctat	360
gaccgatttg	ctgcaatttg	ccatcctctc	aactaccaa	tgattatgaa	taaaggagtt	420
tttatgaaat	taattatatt	ttcatggggc	ttagggttta	tgtaggtac	tgttcaaaca	480
tcattgggtat	ctagttttcc	cttttgtggc	cttaatgaaa	ttaaccatat	atcttgtgaa	540
accccagcag	tgtagaact	tgcattgtgca	gacacgtttt	tgtttgaaat	ctatgcattc	600
acaggcacct	ttttgattat	tttggttcc	ttcttgttga	tactcttgtc	ttacattcga	660
gttctgtttg	ccatcctgaa	gatgccatca	accactggga	gacaaaaggc	cttttccacc	720
tgtgccgctc	acctcacatc	tgtgacctta	ttctatggca	cagccagtat	gacttattta	780
caacccaaat	ctggctactc	accggaaacc	aagaaagtga	tgtcattgtc	ttactcactt	840
ctgacaccac	tgctgaatct	gcttatctac	agtttgcgaa	atagtgagat	gaagagggct	900

ttgatgaaat tatggcgaag gcgagtgggtt ttacacacaa tctga

945

<210> 361

<211> 347

<212> PRT

<213> Homo sapiens

<400> 361

Met	Ile	Val	Gln	Leu	Ile	Cys	Thr	Val	Cys	Phe	Leu	Ala	Val	Asn	Thr
1				5					10					15	
Phe	His	Val	Arg	Ser	Ser	Phe	Asp	Phe	Leu	Lys	Ala	Asp	Asp	Met	Gly
			20					25					30		
Glu	Ile	Asn	Gln	Thr	Leu	Val	Ser	Glu	Phe	Leu	Leu	Leu	Gly	Leu	Ser
		35					40					45			
Gly	Tyr	Pro	Lys	Ile	Glu	Ile	Val	Tyr	Phe	Ala	Leu	Ile	Leu	Val	Met
	50					55					60				
Tyr	Leu	Val	Ile	Leu	Ile	Gly	Asn	Gly	Val	Leu	Ile	Ile	Ala	Ser	Ile
65					70				75						80
Phe	Asp	Ser	His	Phe	His	Thr	Pro	Met	Tyr	Phe	Phe	Leu	Gly	Asn	Leu
			85						90					95	
Ser	Phe	Leu	Asp	Ile	Cys	Tyr	Thr	Ser	Ser	Ser	Val	Pro	Ser	Thr	Leu
			100					105					110		
Val	Ser	Leu	Ile	Ser	Lys	Lys	Arg	Asn	Ile	Ser	Phe	Ser	Gly	Cys	Ala
		115					120					125			
Val	Gln	Met	Phe	Phe	Gly	Phe	Ala	Met	Gly	Ser	Thr	Glu	Cys	Leu	Leu
	130					135					140				
Leu	Gly	Met	Met	Ala	Phe	Asp	Arg	Tyr	Val	Ala	Ile	Cys	Asn	Pro	Leu
145				150						155					160
Arg	Tyr	Pro	Ile	Ile	Leu	Ser	Lys	Val	Ala	Tyr	Val	Leu	Met	Ala	Ser
			165						170					175	
Val	Ser	Trp	Leu	Ser	Gly	Gly	Ile	Asn	Ser	Ala	Val	Gln	Thr	Leu	Leu
			180					185					190		
Ala	Met	Arg	Leu	Pro	Phe	Cys	Gly	Asn	Asn	Ile	Ile	Asn	His	Phe	Ala
		195					200					205			
Cys	Glu	Ile	Leu	Ala	Val	Leu	Lys	Leu	Ala	Cys	Ala	Asp	Ile	Ser	Leu
	210					215					220				
Asn	Ile	Ile	Thr	Met	Val	Ile	Ser	Asn	Met	Ala	Phe	Leu	Val	Leu	Pro
225					230					235					240
Leu	Met	Val	Ile	Phe	Phe	Ser	Tyr	Met	Phe	Ile	Leu	Tyr	Thr	Ile	Leu
			245						250					255	

Gln Met Asn Ser Ala Thr Gly Arg Arg Lys Ala Phe Ser Thr Cys Ser
260 265 270

Ala His Leu Thr Val Val Ile Ile Phe Tyr Gly Thr Ile Phe Phe Met
275 280 285

Tyr Ala Lys Pro Lys Ser Gln Asp Leu Ile Gly Glu Glu Lys Leu Gln
290 295 300

Ala Leu Asp Lys Leu Ile Ser Leu Phe Tyr Gly Val Val Thr Pro Met
305 310 315 320

Leu Asn Pro Ile Leu Tyr Ser Leu Arg Asn Lys Asp Val Lys Ala Ala
325 330 335

Val Lys Tyr Leu Leu Asn Lys Lys Pro Ile His
340 345

<210> 362
<211> 1044
<212> DNA
<213> Homo sapiens

<400> 362

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tcttcttttg	atttcctgaa	agcagatgac	atgggtgaga	ttaaccagac	acttgtgtca	120
gaatttcttc	ttctgggtct	ttctggatac	ccaaagattg	agattgttta	ctttgtcttc	180
attctagtta	tgtacctagt	gattctaatt	ggcaatgggtg	ttctaatacat	agccagcatc	240
tttgattctc	attttcacac	accaatgtac	ttcttcctgg	gcaacctctc	tttctgggat	300
atctgctata	catcctcctc	tgttccctca	acattgggtga	gcttaatctc	aaagaaaaga	360
aacatttctc	tctctggatg	tgcagtgcag	atgttctttg	ggtttgcaat	gggggtcaaca	420
gaatgtctgc	ttcttggcat	gatggcattt	gatcgttatg	tggccatctg	caaccactg	480
agatacccca	tcacctctgag	caaggtggcg	tatgtattga	tggcttctgt	gtcctggctg	540
tccggtggaa	taaattcagc	tgtgcaaaca	ttacttgcca	tgagactgcc	tttctgtggg	600
aataatatta	tcaatcattt	cgcagtgtgaa	atattagctg	tcctcaagct	ggcctgtgct	660
gatatatccc	tcaatattat	caccatgggtg	atatcaaata	tggccttcct	ggttctttcca	720
ctgatgggtca	tttttttctc	ctatatgttc	atcctctaca	ccatcttgca	aatgaattca	780
gccacaggaa	gacgcaaggc	attttccacg	tgctcagctc	acctgactgt	ggtgatcata	840
ttttacggta	ccatcttctt	tatgtatgcg	aaaccgaagt	ctcaagacct	gattggggaa	900
gaaaaattgc	aagcattaga	caagctcatt	tctctgtttt	atggggtagt	gacacccatg	960
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ctgaacaaaa	aaccaattca	ctaa				1044

<210> 363
<211> 324
<212> PRT
<213> Homo sapiens

<400> 363

Met	Leu	Glu	Ser	Asn	Tyr	Thr	Met	Pro	Thr	Glu	Phe	Leu	Phe	Val	Gly
1				5				10						15	

Phe	Thr	Asp	Tyr	Leu	Pro	Leu	Arg	Val	Thr	Leu	Phe	Leu	Val	Phe	Leu
				20				25					30		

Leu Val Tyr Thr Leu Thr Met Val Gly Asn Ile Leu Leu Ile Ile Leu
 35 40 45
 Val Asn Ile Asn Ser Ser Leu Gln Ile Pro Met Tyr Tyr Phe Leu Ser
 50 55 60
 Asn Leu Ser Phe Leu Asp Ile Ser Cys Ser Thr Ala Ile Thr Pro Lys
 65 70 75 80
 Met Leu Ala Asn Phe Leu Ala Ser Arg Lys Ser Ile Ser Pro Tyr Gly
 85 90 95
 Cys Ala Leu Gln Met Phe Phe Phe Ala Ser Phe Ala Asp Ala Glu Cys
 100 105 110
 Leu Ile Leu Ala Ala Met Ala Tyr Asp Arg Tyr Ala Ala Ile Cys Asn
 115 120 125
 Pro Leu Leu Tyr Thr Thr Leu Met Ser Arg Arg Val Cys Val Cys Phe
 130 135 140
 Ile Val Leu Ala Tyr Phe Ser Gly Ser Thr Thr Ser Leu Val His Val
 145 150 155 160
 Cys Leu Thr Phe Arg Leu Ser Phe Cys Gly Ser Asn Ile Val Asn His
 165 170 175
 Phe Phe Cys Asp Ile Pro Pro Leu Leu Ala Leu Ser Cys Thr Asp Thr
 180 185 190
 Gln Ile Asn Gln Leu Leu Leu Phe Ala Leu Cys Ser Phe Ile Gln Thr
 195 200 205
 Ser Thr Phe Val Val Ile Phe Ile Ser Tyr Phe Cys Ile Leu Ile Thr
 210 215 220
 Val Leu Ser Ile Lys Ser Ser Gly Gly Arg Ser Lys Thr Phe Ser Thr
 225 230 235 240
 Cys Ala Ser His Leu Ile Ala Val Thr Leu Phe Tyr Gly Ala Leu Leu
 245 250 255
 Phe Met Tyr Leu Gln Pro Thr Thr Ser Tyr Ser Leu Asp Thr Asp Lys
 260 265 270
 Val Val Ala Val Phe Tyr Thr Val Val Phe Pro Met Phe Asn Pro Ile
 275 280 285
 Ile Tyr Ser Phe Arg Asn Lys Asp Val Lys Asn Ala Leu Lys Lys Leu
 290 295 300
 Leu Glu Arg Ile Gly Tyr Ser Asn Glu Trp Tyr Leu Asn Arg Leu Arg
 305 310 315 320
 Ile Val Asn Ile

<210> 364
 <211> 975
 <212> DNA
 <213> Homo sapiens

<400> 364
 atgttggaga gtaattacac catgccaaact gagttcctat ttgttggatt cacagattat 60
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 ggaaatatac tcttaataat tctagttaat attaattcaa gccttcaa atccatgtat 180
 tattttctta gcaacttatac tttcttagac atcagctgtt ctacagcaat cactcctaaa 240
 atgctggcaa acttcttggc atccaggaaa agcatctctc cttatgggtg tgcactacaa 300
 atgtttttct tcgcttcttt tgcctgatgt gagtgcctta tcctggcagc aatggccttat 360
 gaccgctatg cagccatctg caacccactg ctctaatact acactgatgt ctaggagagt 420
 ctgtgtctgc ttcattgtgt tggcatatct cagtgggaagt acaacatcac tgggtccatgt 480
 gtgcctcaca ttcaggctgt cattttgtgg ctccaatata gtcaatcatt tttctctgtga 540
 tatcccacct cttctggctt tatcatgtac agacactcag atcaaccagc ttctgctctt 600
 tgctttgtgc agcttcatcc agaccagcac ttttgtggta atatttattt cttacttctg 660
 catcctcatc actgtgttga gcatcaagtc ctcagggtggc agaagcaaaa cattctccac 720
 ttgtgcttcc cactcatag cagtcacctt attctatgga gcgctcctgt ttatgtactt 780
 acagcccacc actagctatt ccctagacac tgataagggtg gtggcagtggt tttatactgt 840
 tgtatttccc atgtttaatc caataattta tagtttcaga aacaaggatg tgaaaaatgc 900
 tctcaaaaag ctattagaaa gaattggata ttcaaataaa tgggtatttaa atcgtttaag 960
 aatagtcatt atcta 975

<210> 365
 <211> 334
 <212> PRT
 <213> Homo sapiens

<400> 365
 Met Cys Tyr Leu Ser Gln Leu Cys Leu Ser Leu Gly Glu His Thr Leu
 1 5 10 15
 His Met Gly Met Val Arg His Thr Asn Glu Ser Asn Leu Ala Gly Phe
 20 25 30
 Ile Leu Leu Gly Phe Ser Asp Tyr Pro Gln Leu Gln Lys Val Leu Phe
 35 40 45
 Val Leu Ile Leu Ile Leu Tyr Leu Leu Thr Ile Leu Gly Asn Thr Thr
 50 55 60
 Ile Ile Leu Val Ser Arg Leu Glu Pro Lys Leu His Met Pro Met Tyr
 65 70 75 80
 Phe Phe Leu Ser His Leu Ser Phe Leu Tyr Arg Cys Phe Thr Ser Ser
 85 90 95
 Val Ile Pro Gln Leu Leu Val Asn Leu Trp Glu Pro Met Lys Thr Ile
 100 105 110
 Ala Tyr Gly Gly Cys Leu Val His Leu Tyr Asn Ser His Ala Leu Gly
 115 120 125
 Ser Thr Glu Cys Val Leu Leu Ala Leu Met Ser Cys Asp Arg Tyr Val

130	135	140
Ala Val Cys Arg Pro Leu His Tyr Thr Val Leu Met His Ile His Leu		
145	150	155 160
Cys Met Ala Leu Ala Ser Met Ala Trp Leu Ser Gly Ile Ala Thr Thr		
	165	170 175
Leu Val Gln Ser Thr Leu Thr Leu Gln Leu Pro Phe Cys Gly His Arg		
	180	185 190
Gln Val Asp His Phe Ile Cys Glu Val Pro Val Leu Ile Lys Leu Ala		
	195	200 205
Cys Val Gly Thr Thr Phe Asn Glu Ala Glu Leu Phe Val Ala Ser Ile		
	210	215 220
Leu Phe Leu Ile Val Pro Val Ser Phe Ile Leu Val Ser Ser Gly Tyr		
	225	230 235 240
Ile Ala His Ala Val Leu Arg Ile Lys Ser Ala Thr Arg Arg Gln Lys		
	245	250 255
Ala Phe Gly Thr Cys Phe Ser His Leu Thr Val Val Thr Ile Phe Tyr		
	260	265 270
Gly Thr Ile Ile Phe Met Tyr Leu Gln Pro Ala Lys Ser Arg Ser Arg		
	275	280 285
Asp Gln Gly Lys Phe Val Ser Leu Phe Tyr Thr Val Val Thr Arg Met		
	290	295 300
Leu Asn Pro Leu Ile Tyr Thr Leu Arg Ile Lys Glu Val Lys Gly Ala		
	305	310 315 320
Leu Lys Lys Val Leu Ala Lys Ala Leu Gly Val Asn Ile Leu		
	325	330

<210> 366
 <211> 1005
 <212> DNA
 <213> Homo sapiens

<400> 366
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 cctcagttac agaaggttct atttgtgctc atattgattc tgtatttact aactattttg 180
 gggaatacca ccatcattct gggtttctcgt ctggaaccca agcttcatat gccgatgtat 240
 ttcttccctt ctcactcttc cttcctgtac cgctgcttca ccagcagtgt tattccccag 300
 ctctgtgtaa acctgtggga acccatgaaa actatcgcct atgggtggctg tttgggttcac 360
 ctttacaact cccatgcctt gggatccact gagtgcgtcc tcttggctct gatgtcctgt 420
 gaccgctatg tggctgtctg ccgtcccttc cattacactg tcttaatgca tatccatctc 480
 tgcattggcct tggcatctat ggcattggctc agtgggaatag ccaccaccct ggtacagtcc 540
 accctcacc tgcagctgcc cttctgtggg catcgccaag tggatcattt catctgcgag 600
 gtccctgtgc tcatcaagct ggcttgtgtg ggcaccacgt ttaacgaggc tgagcttttt 660
 gtggctagta tccttttcct tatagtgcct gtctcattca tcctgggtctc ctctgggtac 720

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attgccacg cagtgttgag gattaagtca gctaccagga gacagaaagc attcgggacc 780
tgcttctccc acctgacagt ggtcaccatc ttttatggaa ccatcatctt catgtatctg 840
cagccagcca agagtagatc cagggaccag ggcaagtttg tttctctctt ctacactgtg 900
gtaaccgcga tgcttaaccc tcttatttat accttgagga tcaaggaggt gaaaggggca 960
ttaaagaaag ttctagcaaa ggctctggga gtaaattatt tatga 1005

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<210> 367

<211> 309

<212> PRT

<213> Homo sapiens

<400> 367

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Met Glu Asn Cys Thr Glu Val Thr Lys Phe Ile Leu Leu Gly Leu Thr
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Ser Val Pro Glu Leu Gln Ile Pro Leu Phe Ile Leu Phe Thr Phe Ile
          20              25              30

Tyr Leu Leu Thr Leu Cys Gly Asn Leu Gly Met Met Leu Leu Ile Leu
      35              40              45

Met Asp Ser Cys Leu His Thr Pro Met Tyr Phe Phe Leu Ser Asn Leu
      50              55              60

Ser Leu Val Asp Phe Gly Tyr Ser Ser Ala Val Thr Pro Lys Val Met
      65              70              75              80

Ala Gly Phe Leu Arg Gly Asp Lys Val Ile Ser Tyr Asn Ala Cys Ala
          85              90              95

Val Gln Met Phe Phe Phe Val Ala Leu Ala Thr Val Glu Asn Tyr Leu
          100              105              110

Leu Ala Ser Met Ala Tyr Asp Arg Tyr Ala Ala Val Cys Lys Pro Leu
      115              120              125

His Tyr Thr Thr Thr Met Thr Ala Ser Val Gly Ala Cys Leu Ala Leu
      130              135              140

Gly Ser Tyr Val Cys Gly Phe Leu Asn Ala Ser Phe His Ile Gly Gly
      145              150              155              160

Ile Phe Ser Leu Ser Phe Cys Lys Ser Asn Leu Val His His Phe Phe
          165              170              175

Cys Asp Val Pro Ala Val Met Ala Leu Ser Cys Ser Asp Lys His Thr
          180              185              190

Ser Glu Val Ile Leu Val Phe Met Ser Ser Phe Asn Ile Phe Phe Val
          195              200              205

Leu Leu Val Ile Phe Ile Ser Tyr Leu Phe Ile Phe Ile Thr Ile Leu
      210              215              220

Lys Met His Ser Ala Lys Gly His Gln Lys Ala Leu Ser Thr Cys Ala
      225              230              235              240

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Ser His Phe Thr Ala Val Ser Val Phe Tyr Gly Thr Val Ile Phe Ile
245 250 255

Tyr Leu Gln Pro Ser Ser Ser His Ser Met Asp Thr Asp Lys Met Ala
260 265 270

Ser Val Phe Tyr Ala Met Ile Ile Pro Met Leu Asn Pro Val Val Tyr
275 280 285

Ser Leu Arg Asn Arg Glu Val Gln Asn Ala Phe Lys Lys Val Leu Arg
290 295 300

Arg Gln Lys Phe Leu
305

<210> 368
<211> 930
<212> DNA
<213> Homo sapiens

<400> 368
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ctacagatcc ccctctttat cttgttcacc ttcattctacc tcctcactct gtgtgggaac 120
ctggggatga tgttgctgat cctgatggac tcttgtctcc acaccccat gtactttttc 180
ctcagtaacc tgtctctggt ggacttttga tactcctcag ctgtcactcc caaggatcatg 240
gctgggttcc ttagaggaga caaggatcacc tcctacaatg catgtgctgt tcagatgttc 300
ttctttttag ccttgccac ggtggaaaat tacttgttgg cctcaatggc ctatgaccgc 360
tatgcagcag tgtgcaaacc cctacactac accaccacca tgacggccag ttaggtgcc 420
tgtctggccc taggctcata tgtctgtggc ttctaaatg cctcattcca cattgggggc 480
atattcagtc tctctttctg taaatccaat ctggtacatc actttttctg tgatgttcca 540
gcagtcagtg ctctgtcttg ctctgataaa cacactagtg aggtgattct ggtttttatg 600
tcaagcttta atatcttttt tgttcttcta gttatcttta tctcctactt gttcatattc 660
atcaccatct tgaagatgca ttcagctaag ggacacaaa aagcattgtc cacctgtgcc 720
tctcacttca ctgcagtctc cgtcttctat gggacagtaa tcttcatcta cttgcagccc 780
agctccagcc actccatgga cacagacaaa atggcatctg tgttctatgc tatgatcatc 840
cccatgctga accctgtggt ctacagcctg aggaacagag aagtcagaa tgcattcaag 900
aaagtgttga gaaggcaaaa atttctataa 930

<210> 369
<211> 308
<212> PRT
<213> Homo sapiens

<400> 369
Met Asp Thr Gly Asn Lys Thr Leu Pro Gln Asp Phe Leu Leu Leu Gly
1 5 10 15

Phe Pro Gly Ser Gln Thr Leu Gln Leu Ser Leu Phe Met Leu Phe Leu
20 25 30

Val Met Tyr Ile Leu Thr Val Ser Gly Asn Val Ala Ile Leu Met Leu
35 40 45

Val Ser Thr Ser His Gln Leu His Thr Pro Met Tyr Phe Phe Leu Ser

50	55	60
Asn Leu Ser Phe Leu Glu Ile Trp Tyr Thr Thr Ala Ala Val Pro Lys 65 70 75 80		
Ala Leu Ala Ile Leu Leu Gly Arg Ser Gln Thr Ile Ser Phe Thr Ser 85 90 95		
Cys Leu Leu Gln Met Tyr Phe Val Phe Ser Leu Gly Cys Thr Glu Tyr 100 105 110		
Phe Leu Leu Ala Ala Met Ala Tyr Asp Arg Cys Leu Ala Ile Cys Tyr 115 120 125		
Pro Leu His Tyr Gly Ala Ile Met Ser Ser Leu Leu Ser Ala Gln Leu 130 135 140		
Ala Leu Gly Ser Trp Val Cys Gly Phe Val Ala Ile Ala Val Pro Thr 145 150 155 160		
Ala Leu Ile Ser Gly Leu Ser Phe Cys Gly Pro Arg Ala Ile Asn His 165 170 175		
Phe Phe Cys Asp Ile Ala Pro Trp Ile Ala Leu Ala Cys Thr Asn Thr 180 185 190		
Gln Ala Val Glu Leu Val Ala Phe Val Ile Ala Val Val Val Ile Leu 195 200 205		
Ser Ser Cys Leu Ile Thr Phe Val Ser Tyr Val Tyr Ile Ile Ser Thr 210 215 220		
Ile Leu Arg Ile Pro Ser Ala Ser Gly Arg Ser Lys Ala Phe Ser Thr 225 230 235 240		
Cys Ser Ser His Leu Thr Val Val Leu Ile Trp Tyr Gly Ser Thr Val 245 250 255		
Phe Leu His Val Arg Thr Ser Ile Lys Asp Ala Leu Asp Leu Ile Lys 260 265 270		
Ala Val His Val Leu Asn Thr Val Val Thr Pro Val Leu Asn Pro Phe 275 280 285		
Ile Tyr Thr Leu Arg Asn Lys Glu Val Arg Glu Thr Leu Leu Lys Lys 290 295 300		
Trp Lys Gly Lys 305		

<210> 370
 <211> 927
 <212> DNA
 <213> Homo sapiens

<400> 370

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ggtaaatgtg ctatcttgat gttgggtgagc acctcccatc agttgcatac ccccatgtac 180
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gccctcatca gtggcctgtc cttctgtggc ccccgtgcca tcaaccactt cttctgtgac 540
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cgcacctcta tcaaagatgc cttggatctg atcaaagctg tccacgtcct gaacactgtg 840
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ctgctgaaga aatggaaggg aaaataa 927

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<210> 371

<211> 314

<212> PRT

<213> Homo sapiens

<400> 371

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Met Thr Arg Lys Asn Tyr Thr Ser Leu Thr Glu Phe Val Leu Leu Gly
 1              5              10              15

Leu Ala Asp Thr Leu Glu Leu Gln Ile Ile Leu Phe Leu Phe Phe Leu
      20              25              30

Val Ile Tyr Thr Leu Thr Val Leu Gly Asn Leu Gly Met Ile Leu Leu
      35              40              45

Ile Arg Ile Asp Ser Gln Leu His Thr Pro Met Tyr Phe Phe Leu Ala
      50              55              60

Asn Leu Ser Phe Val Asp Val Cys Asn Ser Thr Thr Ile Thr Pro Lys
      65              70              75              80

Met Leu Ala Asp Leu Leu Ser Glu Lys Lys Thr Ile Ser Phe Ala Gly
      85              90              95

Cys Phe Leu Gln Met Tyr Phe Phe Ile Ser Leu Ala Thr Thr Glu Cys
      100              105              110

Ile Leu Phe Gly Leu Met Ala Tyr Asp Arg Tyr Ala Ala Ile Cys Arg
      115              120              125

Pro Leu Leu Tyr Ser Leu Ile Met Ser Arg Thr Val Tyr Leu Lys Met
      130              135              140

Ala Ala Gly Ala Phe Ala Ala Gly Leu Leu Asn Phe Met Val Asn Thr
      145              150              155              160

Ser His Val Ser Ser Leu Ser Phe Cys Asp Ser Asn Val Ile His His
      165              170              175

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Phe Phe Cys Asp Ser Pro Pro Leu Phe Lys Leu Ser Cys Ser Asp Thr
 180 185 190
 Ile Leu Lys Glu Ser Ile Ser Ser Ile Leu Ala Gly Val Asn Ile Val
 195 200 205
 Gly Thr Leu Leu Val Ile Leu Ser Ser Tyr Ser Tyr Val Leu Phe Ser
 210 215 220
 Ile Phe Ser Met His Ser Gly Glu Gly Arg His Arg Ala Phe Ser Thr
 225 230 235 240
 Cys Ala Ser His Leu Thr Ala Ile Ile Leu Phe Tyr Ala Thr Cys Ile
 245 250 255
 Tyr Thr Tyr Leu Arg Pro Ser Ser Ser Tyr Ser Leu Asn Gln Asp Lys
 260 265 270
 Val Ala Ser Val Phe Tyr Thr Val Val Ile Pro Met Leu Asn Pro Leu
 275 280 285
 Ile Tyr Ser Leu Arg Ser Lys Glu Val Lys Lys Ala Leu Ala Asn Val
 290 295 300
 Ile Ser Arg Lys Arg Thr Ser Ser Phe Leu
 305 310

<210> 372
 <211> 945
 <212> DNA
 <213> Homo sapiens

<400> 372
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 ctggagctac agattatcct ctttttgttt tttcttgtga tttatacact tacagtactg 120
 ggaaatctcg ggatgatcct cttaatcagg atcgattccc agcttcacac acccatgtat 180
 ttcttcctgg ctaacctgtc ctttgtggac gtttgtaact caactaccat caccocaaag 240
 atgctggcag atttattatc agagaagaaa accatctctt ttgctggctg cttectacag 300
 atgtacttct ttatctccct ggcgacaacc gaatgcatcc tctttgggtt aatggcctat 360
 gacaggatag cggccatatg tcgcccgtcg ctttactcct tgatcatgtc caggaccgtc 420
 tacctaaaaa tggcagccgg ggcttttgcg gcagggttgc tgaacttcat ggtcaacaca 480
 agccatgtca gcagcttgtc attctgtgac tccaatgtca tccatcactt cttctgtgac 540
 agtcccccac ttttcaagct ctcttggtct gacacaatcc tgaaagaaag cataagttct 600
 attttggctg gtgtgaatat tgtggggact ctgcttgtca tcctctctc ctactcctac 660
 gttctcttct ccatttttct tatgcattcg ggggagggga ggcacagagc tttctccacg 720
 tgtgcctctc acctgacagc cataattctg ttctatgcca cctgcatcta tacttacctg 780
 agacctagtt ccagctactc cctgaatcag gacaaagtgg cttctgtggt ctacacagtg 840
 gtgattccca tgttgaatcc tctgatctac agcctcagga gtaagggaagt aaagaaggct 900
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<210> 373
 <211> 318
 <212> PRT
 <213> Homo sapiens

<400> 373

Met	Glu	Trp	Glu	Asn	His	Thr	Ile	Leu	Val	Glu	Phe	Phe	Leu	Lys	Gly	1	5	10	15
Leu	Ser	Gly	His	Pro	Arg	Leu	Glu	Leu	Leu	Phe	Phe	Val	Leu	Ile	Phe	20	25	30	
Ile	Met	Tyr	Val	Val	Ile	Leu	Leu	Gly	Asn	Gly	Thr	Leu	Ile	Leu	Ile	35	40	45	
Ser	Ile	Leu	Asp	Pro	His	Leu	His	Thr	Pro	Met	Tyr	Phe	Phe	Leu	Gly	50	55	60	
Asn	Leu	Ser	Phe	Leu	Asp	Ile	Cys	Tyr	Thr	Thr	Thr	Ser	Ile	Pro	Ser	65	70	75	80
Thr	Leu	Val	Ser	Phe	Leu	Ser	Glu	Arg	Lys	Thr	Ile	Ser	Leu	Ser	Gly	85	90	95	
Cys	Ala	Val	Gln	Met	Phe	Leu	Gly	Leu	Ala	Met	Gly	Thr	Thr	Glu	Cys	100	105	110	
Val	Leu	Leu	Gly	Met	Met	Ala	Phe	Asp	Arg	Tyr	Val	Ala	Ile	Cys	Asn	115	120	125	
Pro	Leu	Arg	Tyr	Pro	Ile	Ile	Met	Ser	Lys	Asp	Ala	Tyr	Val	Pro	Met	130	135	140	
Ala	Ala	Gly	Ser	Trp	Ile	Ile	Gly	Ala	Val	Asn	Ser	Ala	Val	Gln	Ser	145	150	155	160
Val	Phe	Val	Val	Gln	Leu	Pro	Phe	Cys	Arg	Asn	Asn	Ile	Ile	Asn	His	165	170	175	
Phe	Thr	Cys	Glu	Ile	Leu	Ala	Val	Met	Lys	Leu	Ala	Cys	Ala	Asp	Ile	180	185	190	
Ser	Asp	Asn	Glu	Phe	Ile	Met	Leu	Val	Ala	Thr	Thr	Leu	Phe	Ile	Leu	195	200	205	
Thr	Pro	Leu	Leu	Leu	Ile	Ile	Val	Ser	Tyr	Thr	Leu	Ile	Ile	Val	Ser	210	215	220	
Ile	Phe	Lys	Ile	Ser	Ser	Ser	Glu	Gly	Arg	Ser	Lys	Ala	Ser	Ser	Thr	225	230	235	240
Cys	Ser	Ala	His	Leu	Thr	Val	Val	Ile	Ile	Phe	Tyr	Gly	Thr	Ile	Leu	245	250	255	
Phe	Met	Tyr	Met	Lys	Pro	Lys	Ser	Lys	Glu	Thr	Leu	Asn	Ser	Asp	Asp	260	265	270	
Leu	Asp	Ala	Thr	Asp	Lys	Ile	Ile	Ser	Met	Phe	Tyr	Gly	Val	Met	Thr	275	280	285	
Pro	Met	Met	Asn	Pro	Leu	Ile	Tyr	Ser	Leu	Arg	Asn	Lys	Asp	Val	Lys	290	295	300	

Glu Ala Val Lys His Leu Leu Asn Arg Arg Phe Phe Ser Lys
 305 310 315

<210> 374
 <211> 957
 <212> DNA
 <213> Homo sapiens

<400> 374
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 ggggaatggta ctctcatttt aatcagcatc ttggaccctc accttcacac ccctatgtac 180
 ttctttctgg ggaacctctc cttcttggac atctgtaca ccaccacctc tattccctcc 240
 acgctagtga gcttcctttc agaaagaaag accatttccc tttctggctg tgcagtgcag 300
 atgttcctcg gcttggccat ggggacaaca gagtgtgtgc ttctgggcat gatggccttt 360
 gaccgctatg tggctatctg caacctctcg agatatccca tcatcatgag taaggatgcc 420
 tatgtaccca tggcagctgg gtccctggatc ataggagctg tcaattctgc agtacaatca 480
 gtgtttgggg tacaattgcc tttctgcagg aataacatca tcaatcattt cacctgtgaa 540
 attctggctg tcatgaaact ggctgtgct gacatctcag acaatgagtt catcatgctt 600
 gtggccacaa cattgttcat attgacacct ttgttattaa tcattgtctc ttacacgtta 660
 atcattgtga gcatcttcaa aattagctct tccgagggga gaagcaaagc ttcctctacc 720
 tggtcagccc atctgactgt ggtcataata ttctatggga ccacctctct catgtacatg 780
 aagcccaagt ctaaagagac acttaattcg gatgacttgg atgctaccga caaaattata 840
 tccatgttct atggggtgat gactcccatg atgaatcctt taatctacag tcttagaaac 900
 aaggatgtga aagaggcagt aaaacaccta ctgaacagaa gggtcttttag caagtga 957

<210> 375
 <211> 318
 <212> PRT
 <213> Homo sapiens

<400> 375
 Met Glu Trp Glu Asn His Thr Ile Leu Val Glu Phe Phe Leu Lys Gly
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 Leu Ser Gly His Pro Arg Leu Glu Leu Leu Phe Phe Val Leu Ile Phe
 20 25 30
 Ile Met Tyr Val Val Ile Leu Leu Gly Asn Gly Thr Leu Ile Leu Ile
 35 40 45
 Ser Ile Leu Asp Pro His Leu His Thr Pro Met Tyr Phe Phe Leu Gly
 50 55 60
 Asn Leu Ser Phe Leu Asp Ile Cys Tyr Thr Thr Thr Ser Ile Pro Ser
 65 70 75 80
 Thr Leu Val Ser Phe Leu Ser Glu Arg Lys Thr Ile Ser Leu Ser Gly
 85 90 95
 Cys Ala Val Gln Met Phe Leu Ser Leu Ala Met Gly Thr Thr Glu Cys
 100 105 110
 Val Leu Leu Gly Val Met Ala Phe Asp Arg Tyr Val Ala Ile Cys Asn

115	120	125
Pro Leu Arg Tyr Pro Ile Ile Met Ser Lys Asp Ala Tyr Val Pro Met 130 135 140		
Ala Ala Gly Ser Trp Ile Ile Gly Ala Val Asn Ser Ala Val Gln Thr 145 150 155 160		
Val Phe Val Val Gln Leu Pro Phe Cys Arg Asn Asn Ile Ile Asn His 165 170 175		
Phe Thr Cys Glu Ile Leu Ala Val Met Lys Leu Ala Cys Ala Asp Ile 180 185 190		
Ser Gly Asn Glu Phe Ile Leu Leu Val Thr Thr Thr Leu Phe Leu Leu 195 200 205		
Thr Pro Leu Leu Leu Ile Ile Val Ser Tyr Thr Leu Ile Ile Leu Ser 210 215 220		
Ile Phe Lys Ile Ser Ser Ser Glu Gly Arg Ser Lys Pro Ser Ser Thr 225 230 235 240		
Cys Ser Ala Arg Leu Thr Val Val Ile Thr Phe Cys Gly Thr Ile Phe 245 250 255		
Leu Met Tyr Met Lys Pro Lys Ser Gln Glu Thr Leu Asn Ser Asp Asp 260 265 270		
Leu Asp Ala Thr Asp Lys Leu Ile Phe Ile Phe Tyr Arg Val Met Thr 275 280 285		
Pro Met Met Asn Pro Leu Ile Tyr Ser Leu Arg Asn Lys Asp Val Lys 290 295 300		
Glu Ala Val Lys His Leu Leu Arg Arg Lys Asn Phe Asn Lys 305 310 315		

<210> 376

<211> 957

<212> DNA

<213> Homo sapiens

<400> 376

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gggaatggta	ctctcatttt	aatcagcatc	ttggaccctc	accttcacac	ccctatgtac	180
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acgctagtga	gcttcctttc	agaaagaaag	accatttccc	tttctggctg	tgcagtgcag	300
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gaccgctatg	tggctatctg	caaccctctg	agatatccca	tcatcatgag	taaggatgcc	420
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gtgtttgtgg	tacaattgcc	tttctgcagg	aataacatca	tcaatcattt	cacctgtgaa	540
attctagctg	tcatgaaact	ggcctgtgct	gacatctcag	gcaatgagtt	catcctgctt	600
gtgaccacaa	cattgttctt	attgacacct	ttgttattaa	ttattgtctc	ttacacgtta	660
atcattttga	gcattctcaa	aattagctct	tcggaggggga	gaagcaaacc	ttcctctacc	720

Cys Ala Ser His Leu Thr Ser Val Thr Leu Phe Tyr Gly Thr Ala Asn
 245 250 255
 Met Thr Tyr Leu Gln Pro Lys Ser Gly Tyr Ser Pro Glu Thr Lys Lys
 260 265 270
 Leu Ile Ser Leu Ala Tyr Thr Leu Leu Thr Pro Leu Leu Asn Pro Leu
 275 280 285
 Ile Tyr Ser Leu Arg Asn Ser Glu Met Lys Arg Thr Leu Ile Lys Leu
 290 295 300
 Trp Arg Arg Lys Val Ile Leu His Thr Phe
 305 310

<210> 378
 <211> 945
 <212> DNA
 <213> Homo sapiens

<400> 378
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 ggaaatgcca tcattacagt catcatctcc ttaaaccaga gcctccacgt tcccatgtac 180
 ctgttcctcc tgaacctatc tgtggtggag gtgagtttca gtgcagtcac tacgcctgaa 240
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 atgtatttca tccttctttt tgggtgggact gaatgttttc tcctgggagc gatggcttat 360
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 acttgggtat ttagttttcc attttgtggc cccaatgaaa ttaatcatct cttctgtgag 540
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 ttgataaaac tatggcgag aaagtgtatt ttacacacat tctga 945

<210> 379
 <211> 309
 <212> PRT
 <213> Homo sapiens

<400> 379
 Met Glu Lys Lys Lys Asn Val Thr Glu Phe Ile Leu Ile Gly Leu Thr
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 Gln Asn Pro Ile Met Glu Lys Val Thr Phe Val Val Phe Leu Val Leu
 20 25 30
 Tyr Met Ile Thr Leu Ser Gly Asn Leu Leu Ile Val Val Thr Ile Thr
 35 40 45
 Thr Ser Gln Ala Leu Ser Ser Pro Met Tyr Phe Phe Leu Thr His Leu
 50 55 60

Ser Leu Ile Asp Thr Val Tyr Ser Ser Ser Ser Ala Pro Lys Leu Ile
65 70 75 80

Val Asp Ser Phe Gln Glu Lys Lys Ile Ile Ser Phe Asn Gly Cys Met
85 90 95

Ala Gln Ala Tyr Ala Glu His Ile Phe Gly Ala Thr Glu Ile Ile Leu
100 105 110

Leu Thr Val Met Ala Cys Asp Cys Tyr Val Ala Ile Cys Lys Pro Leu
115 120 125

Asn Tyr Thr Thr Ile Met Ser His Ser Leu Cys Ile Leu Leu Val Ala
130 135 140

Val Ala Trp Val Gly Gly Phe Leu His Ala Thr Ile Gln Ile Leu Phe
145 150 155 160

Thr Val Trp Leu Pro Phe Cys Gly Pro Asn Val Ile Gly His Phe Met
165 170 175

Cys Asp Leu Tyr Pro Leu Leu Lys Leu Val Cys Ile Asp Thr His Thr
180 185 190

Leu Gly Leu Phe Val Ala Val Asn Ser Gly Phe Ile Cys Leu Leu Asn
195 200 205

Phe Leu Ile Leu Val Val Ser Tyr Val Ile Ile Leu Arg Ser Leu Lys
210 215 220

Asn Asn Ser Leu Glu Gly Arg Cys Lys Ala Leu Ser Thr Cys Ile Ser
225 230 235 240

His Ile Ile Val Val Val Leu Phe Phe Val Pro Cys Ile Phe Val Tyr
245 250 255

Leu Arg Ser Val Thr Thr Leu Pro Ile Asp Lys Ala Val Ala Val Phe
260 265 270

Tyr Thr Met Val Val Pro Met Leu Asn Pro Val Val Tyr Thr Leu Arg
275 280 285

Asn Ala Glu Val Lys Ser Ala Ile Arg Lys Leu Trp Arg Lys Lys Val
290 295 300

Thr Ser Asp Asn Asp
305

<210> 380

<211> 930

<212> DNA

<213> Homo sapiens

<400> 380

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agtgggttta tctgcttatt aaacttcctt atcttggtgg tatectatgt gatcatcttg 660
agatctttaa agaacaatag cttggagggg aggtgtaaag ccctctccac ctgtatttct 720
cacatcatag tagttgtctt attctttgtg ccctgtatat ttgtgtatct gcgctcagtg 780
accactctgc ccattgataa agctgttgct gtattttata ctatggtggg cccaatgtta 840
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<210> 381

<211> 307

<212> PRT

<213> Homo sapiens

<400> 381

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Met Glu Ser Glu Asn Arg Thr Val Ile Arg Glu Phe Ile Leu Leu Gly
  1              5              10              15

Leu Thr Gln Ser Gln Asp Ile Gln Leu Leu Val Phe Val Leu Val Leu
          20              25              30

Ile Phe Tyr Phe Ile Ile Leu Pro Gly Asn Phe Leu Ile Ile Phe Thr
  35              40              45

Ile Lys Ser Asp Pro Gly Leu Thr Ala Pro Leu Tyr Phe Phe Leu Gly
  50              55              60

Asn Leu Ala Phe Leu Asp Ala Ser Tyr Ser Phe Thr Val Ala Pro Arg
  65              70              75              80

Met Leu Val Asp Phe Leu Ser Ala Lys Lys Ile Ile Ser Tyr Arg Gly
          85              90              95

Cys Ile Thr Gln Leu Phe Phe Leu His Phe Leu Gly Gly Gly Glu Gly
  100              105              110

Leu Leu Leu Val Val Met Ala Phe Asp Arg Tyr Ile Ala Ile Cys Arg
  115              120              125

Pro Leu His Tyr Pro Thr Val Met Asn Pro Arg Thr Cys Tyr Ala Met
  130              135              140

Met Leu Ala Leu Trp Leu Gly Gly Phe Val His Ser Ile Ile Gln Val
  145              150              155              160

Val Leu Ile Leu Arg Leu Pro Phe Cys Gly Pro Asn Gln Leu Asp Asn
          165              170              175

Phe Phe Cys Asp Val Pro Gln Val Ile Lys Leu Ala Cys Thr Asp Thr

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180	185	190
Phe Val Val Glu Leu Leu Met Val Phe Asn Ser Gly Leu Met Thr Leu		
195	200	205
Leu Cys Phe Leu Gly Leu Leu Ala Ser Tyr Ala Val Ile Leu Cys Arg		
210	215	220
Ile Arg Gly Ser Ser Ser Glu Ala Lys Asn Lys Ala Met Ser Thr Cys		
225	230	235
Ile Thr His Ile Ile Val Ile Phe Phe Met Phe Gly Pro Gly Ile Phe		
245	250	255
Ile Tyr Thr Arg Pro Phe Arg Ala Phe Pro Ala Asp Lys Val Val Ser		
260	265	270
Leu Phe His Thr Val Ile Phe Pro Leu Leu Asn Pro Val Ile Tyr Thr		
275	280	285
Leu Arg Asn Gln Glu Val Lys Ala Ser Met Lys Lys Val Phe Asn Lys		
290	295	300
His Ile Ala		
305		

<210> 382
 <211> 924
 <212> DNA
 <213> Homo sapiens

<400> 382
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 caagatattc agtcctgggt ctttggtgcta gttttaatat tctacttcat catcctccct 120
 ggaaattttc tcattatattt caccataaag tcagaccctg ggctcacage cccctctat 180
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 ctctttttct tgcacttcct tggaggaggg gagggattac tccttggtgt gatggccttt 360
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 attctttgtc gcatacgagg gtctttctct gaggcacaaa acaaggccat gtccacgtgc 720
 atcacccata tcattgttat attcttcatg tttggacctg gcacttcat ctacacgcgc 780
 cccttcaggg ctttcccagc tgacaagggt gtttctctct tccacacagt gatttttctt 840
 ttgttgaatc ctgtcattta tacccttcgc aaccaggaag tgaaagcttc catgaaaaag 900
 gtgtttaata agcacatagc ctga 924

<210> 383
 <211> 309
 <212> PRT
 <213> Homo sapiens

<400> 383

Met	Ala	Asn	Arg	Asn	Asn	Val	Thr	Glu	Phe	Ile	Leu	Leu	Gly	Leu	Thr	1	5	10	15
Glu	Asn	Pro	Lys	Met	Gln	Lys	Ile	Ile	Phe	Val	Val	Phe	Ser	Val	Ile	20	25	30	
Tyr	Ile	Asn	Ala	Met	Ile	Gly	Asn	Val	Leu	Ile	Val	Val	Thr	Ile	Thr	35	40	45	
Ala	Ser	Pro	Ser	Leu	Arg	Ser	Pro	Met	Tyr	Phe	Phe	Leu	Ala	Tyr	Leu	50	55	60	
Ser	Phe	Ile	Asp	Ala	Cys	Tyr	Ser	Ser	Val	Asn	Thr	Pro	Lys	Leu	Ile	65	70	75	80
Thr	Asp	Ser	Leu	Tyr	Glu	Asn	Lys	Thr	Ile	Leu	Phe	Asn	Gly	Cys	Met	85	90	95	
Thr	Gln	Val	Phe	Gly	Glu	His	Phe	Phe	Arg	Gly	Val	Glu	Val	Ile	Leu	100	105	110	
Leu	Thr	Val	Met	Ala	Tyr	Asp	His	Tyr	Val	Ala	Ile	Cys	Lys	Pro	Leu	115	120	125	
His	Tyr	Thr	Thr	Ile	Met	Lys	Gln	His	Val	Cys	Ser	Leu	Leu	Val	Gly	130	135	140	
Val	Ser	Trp	Val	Gly	Gly	Phe	Leu	His	Ala	Thr	Ile	Gln	Ile	Leu	Phe	145	150	155	160
Ile	Cys	Gln	Leu	Pro	Phe	Cys	Gly	Pro	Asn	Val	Ile	Asp	His	Phe	Met	165	170	175	
Cys	Asp	Leu	Tyr	Thr	Leu	Ile	Asn	Leu	Ala	Cys	Thr	Asn	Thr	His	Thr	180	185	190	
Leu	Gly	Leu	Phe	Ile	Ala	Ala	Asn	Ser	Gly	Phe	Ile	Cys	Leu	Leu	Asn	195	200	205	
Cys	Leu	Leu	Leu	Leu	Val	Ser	Cys	Val	Val	Ile	Leu	Tyr	Ser	Leu	Lys	210	215	220	
Thr	His	Ser	Leu	Glu	Ala	Arg	His	Glu	Ala	Leu	Ser	Thr	Cys	Val	Ser	225	230	235	240
His	Ile	Thr	Val	Val	Ile	Leu	Ser	Phe	Ile	Pro	Cys	Ile	Phe	Val	Tyr	245	250	255	
Met	Arg	Pro	Pro	Ala	Thr	Leu	Pro	Ile	Asp	Lys	Ala	Val	Ala	Val	Phe	260	265	270	
Tyr	Thr	Met	Ile	Thr	Ser	Met	Leu	Asn	Pro	Leu	Ile	Tyr	Thr	Leu	Arg	275	280	285	
Asn	Ala	Gln	Met	Lys	Asn	Ala	Ile	Arg	Lys	Leu	Cys	Ser	Arg	Lys	Ala	290	295	300	

Ile Ser Ser Val Lys
305

<210> 384
<211> 930
<212> DNA
<213> Homo sapiens

<400> 384
atggcgaata gaaacaatgt gacagagttt attctattgg ggcttacaga gaatccaaaa 60
atgcagaaaa tcatatttgt tgtgttttct gtcattctaca tcaacgccat gataggaaaat 120
gtgctcattg tggtcacat cactgccagc ccattactga gatcccccat gtactttttc 180
ctggcctatc tctcctttat tgatgcctgc tattcctctg tcaatacccc taagctgac 240
acagattcac tctatgaaaa caagactatc ttattcaatg gatgtatgac tcaagtcttt 300
ggagaacatt ttttcagagg tgttgaggtc atcctactta ctgtaatggc ctatgaccac 360
tatgtggcca tctgcaagcc cttgcactat accaccatca tgaagcagca tgtttgtagc 420
ctgctagtgg gagtgtcatg ggtaggaggc tttcttcatg caaccataca gatcctcttc 480
atctgtcaat tacctttctg tggctcctaat gtcataagac actttatgtg tgatctctac 540
actttgatca atcttgccctg cactaatacc cacactctag gactcttcat tgctgccaac 600
agtgggttca tatgcctggt aaactgtctc ttgctcctgg tctcctgcgt ggtcactactg 660
tactccttaa agaccacacag cttagaggca aggcatgaag ccctctctac ctgtgtctcc 720
cacatcacag ttgtcatctt atcctttata ccctgcatat ttgtgtacat gagacctcca 780
gctactttac ccattgataa agcagttgct gtattctaca ctatgataac ttctatgtta 840
aacccttaa tctacacctt gaggaatgct caaatgaaaa atgccattag gaaattgtgt 900
agtaggaaag ctatttcaag tgtcaaataa 930

<210> 385
<211> 320
<212> PRT
<213> Homo sapiens

<400> 385
Met Glu Arg Thr Asn Asp Ser Thr Ser Thr Glu Phe Phe Leu Val Gly
1 5 10 15
Leu Ser Ala His Pro Lys Leu Gln Thr Val Phe Phe Val Leu Ile Leu
20 25 30
Trp Met Tyr Leu Met Ile Leu Leu Gly Asn Gly Val Leu Ile Ser Val
35 40 45
Ile Ile Phe Asp Ser His Leu His Thr Pro Met Tyr Phe Phe Leu Cys
50 55 60
Asn Leu Ser Phe Leu Asp Val Cys Tyr Thr Ser Ser Ser Val Pro Leu
65 70 75 80
Ile Leu Ala Ser Phe Leu Ala Val Lys Lys Lys Val Ser Phe Ser Gly
85 90 95
Cys Met Val Gln Met Phe Ile Ser Phe Ala Met Gly Ala Thr Glu Cys
100 105 110
Met Ile Leu Gly Thr Met Ala Leu Asp Arg Tyr Val Ala Ile Cys Tyr
115 120 125

Pro Leu Arg Tyr Pro Val Ile Met Ser Lys Gly Ala Tyr Val Ala Met
 130 135 140
 Ala Ala Gly Ser Trp Val Thr Gly Leu Val Asp Ser Val Val Gln Thr
 145 150 155 160
 Ala Phe Ala Met Gln Leu Pro Phe Cys Ala Asn Asn Val Ile Lys His
 165 170 175
 Phe Val Cys Glu Ile Leu Ala Ile Leu Lys Leu Ala Cys Ala Asp Ile
 180 185 190
 Ser Ile Asn Val Ile Ser Met Thr Gly Ser Asn Leu Ile Val Leu Val
 195 200 205
 Ile Pro Leu Leu Val Ile Ser Ile Ser Tyr Ile Phe Ile Val Ala Thr
 210 215 220
 Ile Leu Arg Ile Pro Ser Thr Glu Gly Lys His Lys Ala Phe Ser Thr
 225 230 235 240
 Cys Ser Ala His Leu Thr Val Val Ile Ile Phe Tyr Gly Thr Ile Phe
 245 250 255
 Phe Met Tyr Ala Lys Pro Glu Ser Lys Ala Ser Val Asp Ser Gly Asn
 260 265 270
 Glu Asp Ile Ile Glu Ala Leu Ile Ser Leu Phe Tyr Gly Val Met Thr
 275 280 285
 Pro Met Leu Asn Pro Leu Ile Tyr Ser Leu Arg Asn Lys Asp Val Lys
 290 295 300
 Ala Ala Val Lys Asn Ile Leu Cys Arg Lys Asn Phe Ser Asp Gly Lys
 305 310 315 320

<210> 386
 <211> 963
 <212> DNA
 <213> Homo sapiens

<400> 386
 atggaaagga ccaacgattc cacgtcgaca gaatttttcc tggtagggct ttctgcccac 60
 ccaaagctcc agacagtttt cttcgttcta attttgtgga tgtacctgat gatcctgctt 120
 ggaaatggag tccttatctc agttatcadc tttgattctc acctgcacac ccccatgtat 180
 ttcttctctc gtaatctttc cttcctcgac gtttgctaca caagttcctc tgtcccacta 240
 attcttgcca gctttctggc agtaaagaaa aagggttcct tctctgggtg tatgggtgcaa 300
 atgtttatth cttttgccat gggggccacg gagtgcacga tcttaggcac gatggcactg 360
 gaccgctatg tggccatctg ctacccactg agataccctg tcatcatgag caaggggtgcc 420
 tatgtggcca tggcagctgg gtccctgggtc actgggcttg tggactcagt agtgcagaca 480
 gcttttgcaa tgcagttacc attctgtgct aataatgtca ttaaacattt tgtctgtgaa 540
 attctggcta tcttgaaact ggccctgtgct gatatttcaa tcaatgtgat tagtatgaca 600

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gggtcgaatc tgattgttct ggttattcca ttgttagtaa tttccatctc ttacatatatt 660
attgttgcca ctattctgag gattccttcc actgaaggaa aacataaggc cttctccacc 720
tgctcagccc acctgacagt ggtgattata ttctatggaa ccatcttctt catgtacgca 780
aagcctgagt ctaaagcctc tggtgattca ggtaatgaag acatcattga ggccctcatc 840
tcccttttct atggagtgat gactcccatg cttaatcctc tcatctatag tctgcgaaac 900
aaggatgtaa aggctgctgt caaaaacata ctgtgtagga aaaacttttc tgatggaaaa 960
tga

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<210> 387

<211> 319

<212> PRT

<213> Homo sapiens

<400> 387

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Met Phe Pro Ala Asn Trp Thr Ser Val Lys Val Phe Phe Phe Leu Gly
  1              5              10              15

Phe Phe His Tyr Pro Lys Val Gln Val Ile Ile Phe Ala Val Cys Leu
      20              25              30

Leu Met Tyr Leu Ile Thr Leu Leu Gly Asn Ile Phe Leu Ile Ser Ile
      35              40              45

Thr Ile Leu Asp Ser His Leu His Thr Pro Met Tyr Leu Phe Leu Ser
      50              55              60

Asn Leu Ser Phe Leu Asp Ile Trp Tyr Ser Ser Ser Ala Leu Ser Pro
      65              70              75              80

Met Leu Ala Asn Phe Val Ser Gly Arg Asn Thr Ile Ser Phe Ser Gly
      85              90              95

Cys Ala Thr Gln Met Tyr Leu Ser Leu Ala Met Gly Ser Thr Glu Cys
      100              105              110

Val Leu Leu Pro Met Met Ala Tyr Asp Arg Tyr Val Ala Ile Cys Asn
      115              120              125

Pro Leu Arg Tyr Pro Val Ile Met Asn Arg Arg Thr Cys Val Gln Ile
      130              135              140

Ala Ala Gly Ser Trp Met Thr Gly Cys Leu Thr Ala Met Val Glu Met
      145              150              155              160

Met Ser Val Leu Pro Leu Ser Leu Cys Gly Asn Ser Ile Ile Asn His
      165              170              175

Phe Thr Cys Glu Ile Leu Ala Ile Leu Lys Leu Val Cys Val Asp Thr
      180              185              190

Ser Leu Val Gln Leu Ile Met Leu Val Ile Ser Val Leu Leu Leu Pro
      195              200              205

Met Pro Met Leu Leu Ile Cys Ile Ser Tyr Ala Phe Ile Leu Ala Ser
      210              215              220

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Ile Leu Arg Ile Ser Ser Val Glu Gly Arg Ser Lys Ala Phe Ser Thr
 225 230 235 240

Cys Thr Ala His Leu Met Val Val Val Leu Phe Tyr Gly Thr Ala Leu
 245 250 255

Ser Met His Leu Lys Pro Ser Ala Val Asp Ser Gln Glu Ile Asp Lys
 260 265 270

Phe Met Ala Leu Val Tyr Ala Gly Gln Thr Pro Met Leu Asn Pro Ile
 275 280 285

Ile Tyr Ser Leu Arg Asn Lys Glu Val Lys Val Ala Leu Lys Lys Leu
 290 295 300

Leu Ile Arg Asn His Phe Asn Thr Ala Phe Ile Ser Ile Leu Lys
 305 310 315

<210> 388
 <211> 960
 <212> DNA
 <213> Homo sapiens

<400> 388
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 cccaaagttc aggtcatcat atttgcggtg tgcttgctga tgtacctgat caccttgctg 120
 ggcaacattt ttctgatctc catcaccatt ctagattccc acctgcacac ccctatgtac 180
 ctcttctca gcaatctctc ctttctggac atctggtact cctcttctgc cctctctcca 240
 atgctggcaa actttgtttc agggagaaac actatttcat tctcaggggtg cgccactcag 300
 atgtacctct cccttgccat gggctccact gagtgtgtgc tcctgcccac gatggcatat 360
 gaccgggtatg tggccatctg caacccccctg agataccctg tcatcatgaa taggagaacc 420
 tgtgtgcaga ttgcagctgg ctctctggatg acaggtctgc tcaactgccc ggtggaaatg 480
 atgtctgtgc tgccactgtc tctctgtggt aatagcatca tcaatcattt cacttgtgaa 540
 attctggcca tcttgaaatt ggtttgtgtg gacacctccc tgggtgcagtt aatcatgctg 600
 gtgatcagtg tacttcttct ccccatgcca atgctactca tttgtatctc ttatgcattt 660
 atcctcgcca gtatcctgag aatcagctca gtggaaggct gaagtaaagc cttttcaacg 720
 tgcacagccc acctgatggt ggtagtgttg ttctatggga cggctctctc catgcacctg 780
 aagccctccg ctgtagattc acaggaaata gacaaattta tggctttggt gtatgccgga 840
 caaaccccca tgttgaatcc tatcatctat agtctacgga acaaagaggt gaaagtggcc 900
 ttgaaaaaat tgctgattag aaatcatttt aatactgcct tcatttccat cctcaaataa 960

<210> 389
 <211> 318
 <212> PRT
 <213> Homo sapiens

<400> 389
 Met Asp Lys Ile Asn Gln Thr Phe Val Arg Glu Phe Ile Leu Leu Gly
 1 5 10 15

Leu Ser Gly Tyr Pro Lys Leu Glu Ile Ile Phe Phe Ala Leu Ile Leu
 20 25 30

Val Met Tyr Val Val Ile Leu Ile Gly Asn Gly Val Leu Ile Ile Ala
 35 40 45

Ser Ile Leu Asp Ser Arg Leu His Met Pro Met Tyr Phe Phe Leu Gly
 50 55 60
 Asn Leu Ser Phe Leu Asp Ile Cys Tyr Thr Thr Ser Ser Ile Pro Ser
 65 70 75 80
 Thr Leu Val Ser Leu Ile Ser Lys Lys Arg Asn Ile Ser Phe Ser Gly
 85 90 95
 Cys Ala Val Gln Met Phe Phe Gly Phe Ala Met Gly Ser Thr Glu Cys
 100 105 110
 Phe Leu Leu Gly Met Met Ala Phe Asp Arg Tyr Val Ala Ile Cys Asn
 115 120 125
 Pro Leu Arg Tyr Pro Ile Ile Met Asn Lys Val Val Tyr Val Leu Leu
 130 135 140
 Thr Ser Val Ser Trp Leu Ser Gly Gly Ile Asn Ser Thr Val Gln Thr
 145 150 155 160
 Ser Leu Ala Met Arg Trp Pro Phe Cys Gly Asn Asn Ile Ile Asn His
 165 170 175
 Phe Leu Cys Glu Ile Leu Ala Val Leu Lys Leu Ala Cys Ser Asp Ile
 180 185 190
 Ser Val Asn Ile Val Thr Leu Ala Val Ser Asn Ile Ala Phe Leu Val
 195 200 205
 Leu Pro Leu Leu Val Ile Phe Phe Ser Tyr Met Phe Ile Leu Tyr Thr
 210 215 220
 Ile Leu Arg Thr Asn Ser Ala Thr Gly Arg His Lys Ala Phe Ser Thr
 225 230 235 240
 Cys Ser Ala His Leu Thr Val Val Ile Ile Phe Tyr Gly Thr Ile Phe
 245 250 255
 Phe Met Tyr Ala Lys Pro Lys Ser Gln Asp Leu Leu Gly Lys Asp Asn
 260 265 270
 Leu Gln Ala Thr Glu Gly Leu Val Ser Met Phe Tyr Gly Val Val Thr
 275 280 285
 Pro Met Leu Asn Pro Ile Ile Tyr Ser Leu Arg Asn Lys Asp Val Lys
 290 295 300
 Ala Ala Ile Lys Tyr Leu Leu Ser Arg Lys Ala Ile Asn Gln
 305 310 315

<210> 390
 <211> 957
 <212> DNA
 <213> Homo sapiens

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<400> 390
atggacaaga taaaccagac atttgtgaga gaattcattc ttctgggact ctctgggttac 60
cccaaacttg agatcatttt ctttgctctg attctagtta tgtacgtagt gattctaatt 120
ggcaatggtg ttctgatcat agcaagcatc ttggattctc gtcttcacat gcccattgtac 180
ttcttcctgg gcaacctctc ttctctggat atctgctata caacctctc cattccctca 240
acactggtga gcttaatctc aaagaaaaga aacatttcct tctctggatg tgcagtgcag 300
atgttctttg ggtttgcaat ggggtcaaca gaatgtttcc tccttggcat gatggcattt 360
gatcgttatg tggccatctg taacctctctg agatacccca tcatcatgaa caagggtggtg 420
tatgtactgc tgacttctgt atcatggctt tctggtggaa tcaattcaac tgtgcaaaca 480
tcacttgcca tgcgatggcc ttctctgtgg aacaatatta ttaatcattt cttatgcgag 540
atcttagctg tcctaaaatt agcttggtct gatatactg tcaatattgt taccctagca 600
gtgtcaaata ttgctttcct agttcttcct ctgctcgtga tttttttctc ctatatgttc 660
atcctctaca ccactctgcg aacgaactcg gccacaggaa gacacaaggc attttctaca 720
tgctcagctc acctgactgt ggtgatcata ttttatggta ccactctctt tatgtatgca 780
aaacctaagt cccaggacct ccttgggaaa gacaacttgc aagctacaga ggggcttgtt 840
tccatgtttt atggggttgt gacccccatg ttaaacccca taatctatag cttgagaaat 900
aaagatgtaa aagctgctat aaaatatattg ctgagcagga aagctattaa ccagtaa 957

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<210> 391
<211> 312
<212> PRT
<213> Homo sapiens

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<400> 391
Met Met Gly Arg Arg Asn Asp Thr Asn Val Ala Asp Phe Ile Leu Thr
  1             5             10             15

Gly Leu Ser Asp Ser Glu Glu Val Gln Met Ala Leu Phe Met Leu Phe
      20             25             30

Leu Leu Ile Tyr Leu Ile Thr Met Leu Gly Asn Val Gly Met Leu Leu
      35             40             45

Ile Ile Arg Leu Asp Leu Gln Leu His Thr Pro Met Tyr Phe Phe Leu
      50             55             60

Thr His Leu Ser Phe Ile Asp Leu Ser Tyr Ser Thr Val Val Thr Pro
      65             70             75             80

Lys Thr Leu Ala Asn Leu Leu Thr Ser Asn Tyr Ile Ser Phe Thr Gly
      85             90             95

Cys Phe Ala Gln Met Phe Cys Phe Val Phe Leu Gly Thr Ala Glu Cys
      100            105            110

Tyr Leu Leu Ser Ser Met Ala Tyr Asp Arg Tyr Ala Ala Ile Cys Ser
      115            120            125

Pro Leu His Tyr Thr Val Ile Met Pro Lys Arg Leu Cys Leu Ala Leu
      130            135            140

Ile Thr Gly Pro Tyr Val Ile Gly Phe Met Asp Ser Phe Val Asn Val
      145            150            155            160

Val Ser Met Ser Arg Leu His Phe Cys Asp Ser Asn Ile Ile His His

```

	165		170		175
Phe Phe Cys Asp Thr Ser Pro Ile Leu Ala Leu Ser Cys Thr Asp Thr	180	185	190		
Asp Asn Thr Glu Met Leu Ile Phe Ile Ile Ala Gly Ser Thr Leu Met	195	200	205		
Val Ser Leu Ile Thr Ile Ser Ala Ser Tyr Val Ser Ile Leu Ser Thr	210	215	220		
Ile Leu Lys Ile Asn Ser Thr Ser Gly Lys Gln Lys Ala Phe Ser Thr	225	230	235	240	
Cys Val Ser His Leu Leu Gly Val Thr Ile Phe Tyr Gly Thr Met Ile	245	250	255		
Phe Thr Tyr Leu Lys Pro Arg Lys Ser Tyr Ser Leu Gly Arg Asp Gln	260	265	270		
Val Ala Pro Val Phe Tyr Thr Ile Val Ile Pro Met Leu Asn Pro Leu	275	280	285		
Ile Tyr Ser Leu Arg Asn Arg Glu Val Lys Asn Ala Leu Ile Arg Val	290	295	300		
Met Gln Arg Arg Gln Asp Ser Arg	305	310			

<210> 392
 <211> 939
 <212> DNA
 <213> Homo sapiens

<400> 392
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 tctgaagagg tccagatggc tctgtttatg ctatttctcc tcatatacct aattactatg 120
 ctggggaatg tggggatgct attgataatc cgccctggacc tccagcttca cactcccatg 180
 tattttttcc ttactcacct gtcattttatt gacctcagtt actcaactgt cgtcacacct 240
 aaaaccttag cgaacttact gacttccaac tatatttcct tcacgggctg ctttgcccag 300
 atgttctgtt ttgtcttctt gggtactgct gaatgttatc ttctctctc aatggcctat 360
 gatcgctatg cagcgatctg cagtcctcta cactacacag ttattatgcc caaaaggctc 420
 tgccctcgctc tcatcactgg gccttatgtg attggcttta tggactcctt tgtcaatgtg 480
 gtttccatga gcagattgca tttctgtgac tcaaacataa ttcatcactt tttctgtgac 540
 acttcccca ttttagctct gtccctgcact gacacagaca aactgaaat gctgatattc 600
 attatcgctg gttccaccct gatgggtgtc cttatcacia tatctgcac ctatgtgtcc 660
 attctctcta ccatcctgaa aattaattcc acttcaggaa agcagaaaagc tttctctact 720
 tgcgtctctc atctcttggg agtcaccatc ttctatggaa ctatgatttt tacttactta 780
 aagccaagaa agtcttattc cttgggaaga gatcaagtg ctctgtgtt ttatactatt 840
 gtgattccca tgctgaatcc actcatttat agtcttagaa acagagaagt gaaaaatgct 900
 ctcattagag tcatgcagag aagacaggac tccaggtag 939

<210> 393
 <211> 312
 <212> PRT

<213> Homo sapiens

<400> 393

Met	Met	Gly	Arg	Arg	Asn	Asn	Thr	Asn	Val	Ala	Asp	Phe	Ile	Leu	Met
1				5					10					15	
Gly	Leu	Thr	Leu	Ser	Glu	Glu	Ile	Gln	Met	Ala	Leu	Phe	Met	Leu	Phe
			20					25					30		
Leu	Leu	Ile	Tyr	Leu	Ile	Thr	Met	Leu	Gly	Asn	Val	Gly	Met	Ile	Leu
		35					40					45			
Ile	Ile	Arg	Leu	Asp	Leu	Gln	Leu	His	Thr	Pro	Met	Tyr	Phe	Phe	Leu
	50					55					60				
Thr	His	Leu	Ser	Phe	Ile	Asp	Leu	Ser	Tyr	Ser	Thr	Val	Val	Thr	Pro
65					70				75						80
Lys	Thr	Leu	Ala	Asn	Leu	Leu	Thr	Ser	Asn	Tyr	Ile	Ser	Phe	Thr	Gly
				85					90						95
Cys	Phe	Ala	Gln	Met	Phe	Phe	Phe	Ala	Phe	Leu	Gly	Thr	Ala	Glu	Cys
			100					105					110		
Tyr	Leu	Leu	Ser	Ser	Met	Ala	His	Asp	Arg	Tyr	Ala	Ala	Ile	Cys	Ser
		115					120					125			
Pro	Leu	His	Tyr	Thr	Val	Ile	Met	Ser	Lys	Arg	Leu	Cys	Leu	Ala	Leu
	130					135					140				
Ile	Thr	Gly	Pro	Tyr	Val	Ile	Gly	Phe	Ile	Asp	Ser	Phe	Val	Asn	Val
145					150					155					160
Val	Ser	Met	Ser	Arg	Leu	His	Phe	Tyr	Asp	Ser	Asn	Val	Ile	His	His
				165					170					175	
Phe	Phe	Cys	Asp	Thr	Ser	Pro	Ile	Leu	Ala	Leu	Ser	Cys	Thr	Asp	Thr
			180					185					190		
Tyr	Asn	Thr	Glu	Ile	Leu	Ile	Phe	Ile	Ile	Val	Gly	Ser	Thr	Leu	Met
		195					200					205			
Val	Ser	Leu	Phe	Thr	Ile	Ser	Ala	Ser	Tyr	Val	Phe	Ile	Leu	Phe	Thr
	210					215					220				
Ile	Leu	Lys	Ile	Asn	Ser	Thr	Ser	Gly	Lys	Gln	Lys	Ala	Phe	Ser	Thr
225					230					235					240
Cys	Val	Ser	His	Leu	Leu	Gly	Val	Thr	Ile	Phe	Tyr	Ser	Thr	Leu	Ile
				245					250					255	
Phe	Thr	Tyr	Leu	Lys	Pro	Arg	Lys	Ser	Tyr	Ser	Leu	Gly	Arg	Asp	Gln
			260					265					270		
Val	Ala	Ser	Val	Phe	Tyr	Thr	Ile	Val	Ile	Pro	Val	Leu	Asn	Pro	Leu
		275					280					285			

Ile Tyr Ser Leu Arg Asn Lys Glu Val Lys Asn Ala Val Ile Arg Val
 290 295 300

Met Gln Arg Arg Gln Asp Ser Arg
 305 310

<210> 394
 <211> 939
 <212> DNA
 <213> Homo sapiens

<400> 394
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 tctgaagaga tccagatggc tctgtttatg ctatttctcc tgatatacct aattactatg 120
 ctggggaatg tggggatgat attgataatc cgcctggacc tccagcttca cactcccatg 180
 tattttttcc ttactcacct gtcattttatt gacctcagtt actcaactgt cgtcacacct 240
 aaaaccttag cgaacttact gacttccaac tatatttcct ttacgggctg ctttgcccag 300
 atgttctttt ttgccttctt gggtaactgt gaatgttacc ttctctcctc aatggcccat 360
 gatcgctatg cagcgatctg cagtccctca cactacacag ttattatgtc caaaaggctc 420
 tgcctcgctc tcatcactgg gccttatgtg attggcttta tagactcctt tgtcaacgtg 480
 gtttccatga gcagattgca tttctacgac tcaaacgtaa ttcatacact tttctgtgac 540
 acttcccca ttttagctct gtccctgcact gatacatata acaccgaaat cctgatattc 600
 attattgttg gttccaccct gatgggtgtc cttttcacia tatctgcac ctatgtgttc 660
 attctcttta ccatactgaa aattaattcc acttcaggaa agcagaaaagc tttctctact 720
 tgcgtctctc atctcttggg agtcaccatc ttttatagca ctctgatttt tacttattta 780
 aaaccaagaa agtcttattc cttgggaaga gatcaagtgg cttctgtttt ttatactatt 840
 gtgattcccg tgctgaatcc actcatttat agtcttagaa acaaagaggt gaaaaatgct 900
 gtcacagag tcatgcagag aagacaggac tccaggtaa 939

<210> 395
 <211> 310
 <212> PRT
 <213> Homo sapiens

<400> 395
 Met Ala Gly Asn Asn Phe Thr Glu Val Thr Val Phe Ile Leu Ser Gly
 1 5 10 15
 Phe Ala Asn His Pro Glu Leu Gln Val Ser Leu Phe Leu Met Phe Leu
 20 25 30
 Phe Ile Tyr Leu Phe Thr Val Leu Gly Asn Leu Gly Leu Ile Thr Leu
 35 40 45
 Ile Arg Met Asp Ser Gln Leu His Thr Pro Met Tyr Phe Phe Leu Ser
 50 55 60
 Asn Leu Ala Phe Ile Asp Ile Phe Tyr Ser Ser Thr Val Thr Pro Lys
 65 70 75 80
 Ala Leu Val Asn Phe Gln Ser Asn Arg Arg Ser Ile Ser Phe Val Gly
 85 90 95
 Cys Phe Val Gln Met Tyr Phe Phe Val Gly Leu Val Cys Cys Glu Cys
 100 105 110

Phe Leu Leu Gly Ser Met Ala Tyr Asn Arg Tyr Ile Ala Ile Cys Asn
115 120 125
Pro Leu Leu Tyr Ser Val Val Met Ser Gln Lys Val Ser Asn Trp Leu
130 135 140
Gly Val Met Pro Tyr Val Ile Gly Phe Thr Ser Ser Leu Ile Ser Val
145 150 155 160
Trp Val Ile Ser Ser Leu Ala Phe Cys Asp Ser Ser Ile Asn His Phe
165 170 175
Phe Cys Asp Thr Thr Ala Leu Leu Ala Leu Ser Cys Val Asp Thr Phe
180 185 190
Gly Thr Glu Met Val Ser Phe Val Leu Ala Gly Phe Thr Leu Leu Ser
195 200 205
Ser Leu Leu Ile Ile Thr Val Thr Tyr Ile Ile Ile Ile Ser Ala Ile
210 215 220
Leu Arg Ile Gln Ser Ala Ala Gly Arg Gln Lys Ala Phe Ser Thr Cys
225 230 235 240
Ala Ser His Leu Met Ala Val Thr Ile Phe Tyr Gly Ser Leu Ile Phe
245 250 255
Thr Tyr Leu Gln Pro Asp Asn Thr Ser Ser Leu Thr Gln Ala Gln Val
260 265 270
Ala Ser Val Phe Tyr Thr Ile Val Ile Pro Met Leu Asn Pro Leu Ile
275 280 285
Tyr Ser Leu Arg Asn Lys Asp Val Lys Asn Ala Leu Leu Arg Val Ile
290 295 300
His Arg Lys Leu Phe Pro
305 310

<210> 396

<211> 933

<212> DNA

<213> Homo sapiens

<400> 396

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ggaaacctgg gactgatcac gttaatcaga atggattctc agcttcacac ccctatgtac 180
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gcattggtga atttccaatc caatcggaga tccatctcct ttgttggtg ctttgttcaa 300
atgtactttt ttgttggtg ggtgtgttgt gagtggttcc ttctgggatc aatggcctac 360
aatcgctaca tagcaatctg caatccctta ctgtattcag tagtcatgtc ccaaaaagtg 420
tccaactggc tgggagtaat gccatatgtg ataggcttca caagctcgct gatattctgtc 480
tgggtgataa gcagtttggc gttctgtgat tccagcatca atcatttttt ttgtgacacc 540
acagctcttt tagcactctc ctgtgtagat acattcggca cagaaatggt gagctttgtc 600

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ttagctggat tcactcttct tagctctctc cttatcatca cagtcactta tatcatcatc 660
atctcagcca tcctgaggat ccagtcagca gcaggcaggc agaaggcctt ctccacctgc 720
gcatccacc tcattggctgt aactatcttt tatgggtctc tgattttcac ctatttgcaa 780
cctgataaca catcatcgct gaccacaggcg cagggtggcat ctgtattcta tacgattgtc 840
attcccatgc tgaatccact catctacagt ctgaggaaca aagatgtgaa aaatgctctt 900
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<210> 397

<211> 350

<212> PRT

<213> Homo sapiens

<400> 397

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Met Asn Ser Leu Gly Lys Leu Val Ser Met Ile Leu Ser Ala His Val
  1              5              10              15

Phe Cys Tyr Ser Lys Phe Asn Cys Phe Gly Cys Thr His Ser Ile Pro
      20              25              30

Ala Leu Gly Ala Asp Pro Pro Gly Gly Met Gly Leu Gly Asn Glu Ser
      35              40              45

Ser Leu Met Asp Phe Ile Leu Leu Gly Phe Ser Asp His Pro Arg Leu
      50              55              60

Glu Ala Val Leu Phe Val Phe Val Leu Phe Phe Tyr Leu Leu Thr Leu
      65              70              75              80

Val Gly Asn Phe Thr Ile Ile Ile Ile Ser Tyr Leu Asp Pro Pro Leu
      85              90              95

His Thr Pro Met Tyr Phe Phe Leu Ser Asn Leu Ser Leu Leu Asp Ile
      100              105              110

Cys Phe Thr Thr Ser Leu Ala Pro Gln Thr Leu Val Asn Leu Gln Arg
      115              120              125

Pro Lys Lys Thr Ile Thr Tyr Gly Gly Cys Val Ala Gln Leu Tyr Ile
      130              135              140

Ser Leu Ala Leu Gly Ser Thr Glu Cys Ile Leu Leu Ala Asp Met Ala
      145              150              155              160

Leu Asp Arg Tyr Ile Ala Val Cys Lys Pro Leu His Tyr Val Val Ile
      165              170              175

Met Asn Pro Arg Leu Cys Gln Gln Leu Ala Ser Ile Ser Trp Leu Ser
      180              185              190

Gly Leu Ala Ser Ser Leu Ile His Ala Thr Phe Thr Leu Gln Leu Pro
      195              200              205

Leu Cys Gly Asn His Arg Leu Asp His Phe Ile Cys Glu Val Pro Ala
      210              215              220

Leu Leu Lys Leu Ala Cys Val Asp Thr Thr Val Asn Glu Leu Val Leu

```

225		230		235		240
Phe Val Val Ser Val Leu Phe Val Val Ile Pro Pro Ala Leu Ile Ser						
	245			250		255
Ile Ser Tyr Gly Phe Ile Thr Gln Ala Val Leu Arg Ile Lys Ser Val						
	260		265		270	
Glu Ala Arg His Lys Ala Phe Ser Thr Cys Ser Ser His Leu Thr Val						
	275		280		285	
Val Ile Ile Phe Tyr Gly Thr Ile Ile Tyr Val Tyr Leu Gln Pro Ser						
	290		295		300	
Asp Ser Tyr Ala Gln Asp Gln Gly Lys Phe Ile Ser Leu Phe Tyr Thr						
305		310		315		320
Met Val Thr Pro Thr Leu Asn Pro Ile Ile Tyr Thr Leu Arg Asn Lys						
	325		330		335	
Asp Met Lys Glu Ala Leu Arg Lys Leu Leu Ser Gly Lys Leu						
	340		345		350	

<210> 398
 <211> 1053
 <212> DNA
 <213> Homo sapiens

<400> 398
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 gggatgggat tgggcaatga gagttcccta atggatttca tccttctagg cttctcagac 180
 caccctcgtc tggaggctgt tctctttgta tttgtccttt tcttctacct cctgaccctt 240
 gtgggaaact tcaccataat catcatctca tatctggatc cccctcttca taccccaatg 300
 tacttttttc tcagcaacct ctctttactg gacatctgct tcactactag cettgctcct 360
 cagaccttag ttaacttgca aagaccaaac aagacgatca cttacggtgg ttgtgtggcg 420
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 ctgcaaccta gtgacagcta tgcccaggac caagggaagt ttatctccct cttctacacc 960
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 gctctgagga aacttctctc gggaaaattg tga 1053

<210> 399
 <211> 323
 <212> PRT
 <213> Homo sapiens

<400> 399
 Met Asp Lys Ser Asn Ser Ser Val Val Ser Glu Phe Val Leu Leu Gly

1	5	10	15
Leu Cys Ser Ser Gln Lys Leu Gln Leu Phe Tyr Phe Cys Phe Phe Ser	20	25	30
Val Leu Tyr Thr Val Ile Val Leu Gly Asn Leu Leu Ile Ile Leu Thr	35	40	45
Val Thr Ser Asp Thr Ser Leu His Ser Pro Met Tyr Phe Leu Leu Gly	50	55	60
Asn Leu Ser Phe Val Asp Ile Cys Gln Ala Ser Phe Ala Thr Pro Lys	65	70	75
Met Ile Ala Asp Phe Leu Ser Ala His Glu Thr Ile Ser Phe Ser Gly	85	90	95
Cys Ile Ala Gln Ile Phe Phe Ile His Leu Phe Thr Gly Gly Glu Met	100	105	110
Val Leu Leu Val Ser Met Ala Tyr Asp Arg Tyr Val Ala Ile Cys Lys	115	120	125
Pro Leu Tyr Tyr Val Val Ile Met Ser Arg Arg Thr Cys Thr Val Leu	130	135	140
Val Met Ile Ser Trp Ala Val Ser Leu Val His Thr Leu Ser Gln Leu	145	150	155
Ser Phe Thr Val Asn Leu Pro Phe Cys Gly Pro Asn Val Val Asp Ser	165	170	175
Phe Phe Cys Asp Leu Pro Arg Val Thr Lys Leu Ala Cys Leu Asp Ser	180	185	190
Tyr Ile Ile Glu Ile Leu Ile Val Val Asn Ser Gly Ile Leu Ser Leu	195	200	205
Ser Thr Phe Ser Leu Leu Val Ser Ser Tyr Ile Ile Ile Leu Val Thr	210	215	220
Val Trp Leu Lys Ser Ser Ala Ala Met Ala Lys Ala Phe Ser Thr Leu	225	230	235
Ala Ser His Ile Ala Val Val Ile Leu Phe Phe Gly Pro Cys Ile Phe	245	250	255
Ile Tyr Val Trp Pro Phe Thr Ile Ser Pro Leu Asp Lys Phe Leu Ala	260	265	270
Ile Phe Tyr Thr Val Phe Thr Pro Val Leu Asn Pro Ile Ile Tyr Thr	275	280	285
Leu Arg Asn Arg Asp Met Lys Ala Ala Val Arg Lys Ile Val Asn His	290	295	300
Tyr Leu Arg Pro Arg Arg Ile Ser Glu Met Ser Leu Val Val Arg Thr			

305

310

315

320

Ser Phe His

<210> 400

<211> 972

<212> DNA

<213> Homo sapiens

<400> 400

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caaaaactcc agcttttcta tttttgtttc ttctctgtgt tgtatacagt catttgtgctg 120
ggaaatcttc tcattatcct cacagtgact tctgatacca gcctgcactc ccctatgtac 180
tttctcttgg gaaacctttc ctttgttgac atttgtcagg cttcttttgc taccctaaa 240
atgattgcag attttctgag tgcacacgag accatatctt tcagtggctg catagcccaa 300
attttcttta ttcacctttt tactggaggg gagatgggtgc tacttgtttc gatggcctat 360
gacaggtatg tagccatatg caaacctta tactatgtgg tcatcatgag ccgaaggaca 420
tgcactgtct tggtaatgat ctcttgggct gtgagcttgg tgcacacatt aagccagtta 480
tcatttactg tgaacctgcc tttttgtgga cctaattgtag tagacagctt tttttgtgat 540
cttctctgag tcaccaaact tgctgcctg gactcttaca tcattgaaat actaattgtg 600
gtcaatagtg gaattctttc cctaagcact ttctctctct tggtcagctc ctacatcatt 660
attcttggtta cagtttggct caagtcttca gctgcaatgg caaaggcatt ttctacgctg 720
gcttcccata ttgcagtagt aatattattc tttggacctt gcattcttcat ctatgtgtgg 780
ccctttacca tctctccttt ggataaattt cttgccatat tttaactgtt tttcaccctc 840
gtcctaaacc ccattattta tacactaagg aatagggata tgaaggctgc cgtaaggaaa 900
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<210> 401

<211> 311

<212> PRT

<213> Homo sapiens

<400> 401

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Met Ala His Thr Asn Glu Ser Met Val Ser Glu Phe Val Leu Leu Gly
 1             5             10             15
Leu Ser Asn Ser Trp Gly Leu Gln Leu Phe Phe Phe Ala Ile Phe Ser
          20             25             30
Ile Val Tyr Val Thr Ser Val Leu Gly Asn Val Leu Ile Ile Val Ile
          35             40             45
Ile Ser Phe Asp Ser His Leu Asn Ser Pro Met Tyr Phe Leu Leu Ser
          50             55             60
Asn Leu Ser Phe Ile Asp Ile Cys Gln Ser Asn Phe Ala Thr Pro Lys
          65             70             75             80
Met Leu Val Asp Phe Phe Ile Glu Arg Lys Thr Ile Ser Phe Glu Gly
          85             90             95
Cys Met Ala Gln Ile Phe Val Leu His Ser Phe Val Gly Ser Glu Met
          100             105             110

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Met Leu Leu Val Ala Met Ala Tyr Asp Arg Phe Ile Ala Ile Cys Lys
 115 120 125
 Pro Leu His Tyr Ser Thr Ile Met Asn Arg Arg Leu Cys Val Ile Phe
 130 135 140
 Val Ser Ile Ser Trp Ala Val Gly Val Leu His Ser Val Ser His Leu
 145 150 155 160
 Ala Phe Thr Val Asp Leu Pro Phe Cys Gly Pro Asn Glu Val Asp Ser
 165 170 175
 Phe Phe Cys Asp Leu Pro Leu Val Ile Glu Leu Ala Cys Met Asp Thr
 180 185 190
 Tyr Glu Met Glu Ile Met Thr Leu Thr Asn Ser Gly Leu Ile Ser Leu
 195 200 205
 Ser Cys Phe Leu Ala Leu Ile Ile Ser Tyr Thr Ile Ile Leu Ile Gly
 210 215 220
 Val Arg Cys Arg Ser Ser Ser Gly Ser Ser Lys Ala Leu Ser Thr Leu
 225 230 235 240
 Thr Ala His Ile Thr Val Val Ile Leu Phe Phe Gly Pro Cys Ile Tyr
 245 250 255
 Phe Tyr Ile Trp Pro Phe Ser Arg Leu Pro Val Asp Lys Phe Leu Ser
 260 265 270
 Val Phe Tyr Thr Val Cys Thr Pro Leu Leu Asn Pro Ile Ile Tyr Ser
 275 280 285
 Leu Arg Asn Glu Asp Val Lys Ala Ala Met Trp Lys Leu Arg Asn His
 290 295 300
 His Val Asn Ser Trp Lys Asn
 305 310

<210> 402
 <211> 936
 <212> DNA
 <213> Homo sapiens

<400> 402
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 tggggacttc aacttttctt tttcgccatc ttctctatag tctatgtgac atcagtgcta 120
 ggcaatgtct taattattgt cattatttct tttgactccc atttgaactc tcctatgtac 180
 ttcttgctca gtaatctttc tttcattgat atctgtcagt ctaactttgc ccccccaag 240
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 gacagattta tagccatatg taagcctctg cactacagta caattatgaa cgggaggctc 420
 tgtgtaattt ttgtgtctat ttcttgggag gtgggcgttc ttcattctgt gagccacttg 480
 gcttttacag tggacctgcc attctgtggt cccaatgagg tggatagctt cttttgtgac 540
 cttcccttgg tgatagagct ggcttgcatt gatacatatg aaatggaaat tatgacccta 600


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acgaacagtg gctgatatc attgagctgt ttcctggcctt taattatttc ctacaccatc 660
attttgatcg gtgtccgatg caggtcctcc agtgggcat ctaaggctct ttctacatta 720
actgcccaca tcacagtggg cattcttttc ttcgggcctt gcatttattt ctatatatgg 780
ccttttagca gacttctgt ggacaaattt ctttctgtgt tctacactgt ttgtactccc 840
ttgttgaacc ccatcatcta ctctttgagg aatgaagatg ttaaagcagc catgtggaag 900
ctgagaaacc atcatgtgaa ctctggaaa aactag 936

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<210> 403

<211> 314

<212> PRT

<213> Homo sapiens

<400> 403

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Met Asp Val Gly Asn Lys Ser Thr Met Ser Glu Phe Val Leu Leu Gly
  1              5              10              15

Leu Ser Asn Ser Trp Glu Leu Gln Met Phe Phe Phe Met Val Phe Ser
          20              25              30

Leu Leu Tyr Val Ala Thr Met Val Gly Asn Ser Leu Ile Val Ile Thr
      35              40              45

Val Ile Val Asp Pro His Leu His Ser Pro Met Tyr Phe Leu Leu Thr
      50              55              60

Asn Leu Ser Ile Ile Asp Met Ser Leu Ala Ser Phe Ala Thr Pro Lys
  65              70              75              80

Met Ile Thr Asp Tyr Leu Thr Gly His Lys Thr Ile Ser Phe Asp Gly
          85              90              95

Cys Leu Thr Gln Ile Phe Phe Leu His Leu Phe Thr Gly Thr Glu Ile
      100              105              110

Ile Leu Leu Met Ala Met Ser Phe Asp Arg Tyr Ile Ala Ile Cys Lys
      115              120              125

Pro Leu His Tyr Ala Ser Val Ile Ser Pro Gln Val Cys Val Ala Leu
      130              135              140

Val Val Ala Ser Trp Ile Met Gly Val Met His Ser Met Ser Gln Val
      145              150              155              160

Ile Phe Ala Leu Thr Leu Pro Phe Cys Gly Pro Tyr Glu Val Asp Ser
          165              170              175

Phe Phe Cys Asp Leu Pro Val Val Phe Gln Leu Ala Cys Val Asp Thr
      180              185              190

Tyr Val Leu Gly Leu Phe Met Ile Ser Thr Ser Gly Ile Ile Ala Leu
      195              200              205

Ser Cys Phe Ile Val Leu Phe Asn Ser Tyr Val Ile Val Leu Val Thr
      210              215              220

Val Lys His His Ser Ser Arg Gly Ser Ser Lys Ala Leu Ser Thr Cys

```


Val Leu Gly Asn Leu Leu Ile Val Val Thr Ile Ala Ser Glu Pro His
 50 55 60
 Leu His Ser Pro Thr Tyr Phe Leu Leu Gly Asn Leu Ser Phe Ile Asp
 65 70 75 80
 Met Ser Leu Ala Ser Phe Ala Thr Pro Lys Met Ile Ala Asp Phe Leu
 85 90 95
 Arg Glu His Lys Ala Ile Ser Phe Glu Gly Cys Met Thr Gln Met Phe
 100 105 110
 Phe Leu His Leu Leu Gly Gly Ala Glu Ile Val Leu Leu Ile Ser Met
 115 120 125
 Ser Phe Asp Arg Tyr Val Ala Ile Cys Lys Pro Leu His Tyr Leu Thr
 130 135 140
 Ile Met Ser Arg Arg Met Cys Val Gly Leu Val Ile Leu Ser Trp Ile
 145 150 155 160
 Val Gly Ile Phe His Ala Leu Ser Gln Leu Ala Phe Thr Val Asn Leu
 165 170 175
 Pro Phe Cys Gly Pro Asn Glu Val Asp Ser Phe Phe Cys Asp Leu Pro
 180 185 190
 Leu Val Ile Lys Leu Ala Cys Val Asp Thr Tyr Ile Leu Gly Val Phe
 195 200 205
 Met Ile Ser Thr Ser Gly Met Ile Ala Leu Val Cys Phe Ile Leu Leu
 210 215 220
 Val Ile Ser Tyr Thr Ile Ile Leu Val Thr Val Arg Gln Arg Ser Ser
 225 230 235 240
 Gly Gly Ser Ser Lys Ala Leu Ser Thr Cys Ser Ala His Phe Thr Val
 245 250 255
 Val Thr Leu Phe Phe Gly Pro Cys Thr Phe Ile Tyr Val Trp Pro Phe
 260 265 270
 Thr Asn Phe Pro Ile Asp Lys Val Leu Ser Val Phe Tyr Thr Ile Tyr
 275 280 285
 Thr Pro Leu Leu Asn Pro Val Ile Tyr Thr Val Arg Asn Lys Asp Val
 290 295 300
 Lys Tyr Ser Met Arg Lys Leu Ser Ser His Ile Phe Lys Ser Arg Lys
 305 310 315 320
 Thr Asp His Thr Pro
 325

<210> 406

<211> 978

<212> DNA

<213> Homo sapiens

<400> 406

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cccaatgaag tagacagttt cttttgtgac ctccctttgg tgattaaact tgcttgtgtc 600
gacacatata ttctgggggt gttcatgata tcaaccagtg gcatgattgc cctgggtgtg 660
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<210> 407

<211> 313

<212> PRT

<213> Homo sapiens

<400> 407

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Met Glu Thr Ala Asn Tyr Thr Lys Val Thr Glu Phe Val Leu Thr Gly
 1             5             10             15

Leu Ser Gln Thr Arg Glu Val Gln Leu Val Leu Phe Val Ile Phe Leu
 20             25             30

Ser Phe Tyr Leu Phe Ile Leu Pro Gly Asn Ile Leu Ile Ile Cys Thr
 35             40             45

Ile Arg Leu Asp Pro His Leu Thr Ser Pro Met Tyr Phe Leu Leu Ala
 50             55             60

Asn Leu Ala Leu Leu Asp Ile Trp Tyr Ser Ser Ile Thr Ala Pro Lys
 65             70             75             80

Met Leu Ile Asp Phe Phe Val Glu Arg Lys Ile Ile Ser Phe Gly Gly
 85             90             95

Cys Ile Ala Gln Leu Phe Phe Leu His Phe Val Gly Ala Ser Glu Met
100             105             110

Phe Leu Leu Ile Val Met Ala Tyr Asp Arg Tyr Ala Ala Ile Cys Arg
115             120             125

Pro Leu His Tyr Ala Thr Ile Met Asn Arg Arg Leu Cys Cys Ile Leu
130             135             140

Val Ala Leu Ser Trp Met Gly Gly Phe Ile His Ser Ile Ile Gln Val
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145		150		155		160
Ala Leu Ile Val Arg Leu Pro Phe Cys Gly Pro Asn Glu Leu Asp Ser						
	165			170		175
Tyr Phe Cys Asp Ile Thr Gln Val Val Arg Ile Ala Cys Ala Asn Thr						
	180			185		190
Phe Pro Glu Glu Leu Val Met Ile Cys Ser Ser Gly Leu Ile Ser Val						
	195			200		205
Val Cys Phe Ile Ala Leu Leu Met Ser Tyr Ala Phe Leu Leu Ala Leu						
	210			215		220
Leu Lys Lys His Ser Gly Ser Asp Glu Asn Thr Asn Arg Ala Met Ser						
225		230		235		240
Thr Cys Tyr Ser His Ile Thr Ile Val Val Leu Met Phe Gly Pro Ser						
	245			250		255
Ile Tyr Ile Tyr Ala Arg Pro Phe Asp Ser Phe Ser Leu Asp Lys Val						
	260			265		270
Val Ser Val Phe His Thr Val Ile Phe Pro Leu Leu Asn Pro Ile Ile						
	275			280		285
Tyr Thr Leu Arg Asn Lys Glu Val Lys Ala Ala Met Arg Lys Val Val						
	290			295		300
Thr Lys Tyr Ile Leu Cys Glu Glu Lys						
305		310				

<210> 408
 <211> 942
 <212> DNA
 <213> Homo sapiens

<400> 408
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 ggaaatatcc ttatcatttg caccatcagg ctagaccctc atctgacttc tcctatgtat 180
 ttcctgttgg ctaatctggc cctccttgat atttggtact cttccattac agcccctaaa 240
 atgctcatag acttctttgt ggagaggaag ataatttcct ttggtggatg cattgcacag 300
 ctcttcttct tacactttgt tggggcttcg gagatgttct tgctcatagt gatggcctat 360
 gaccgctatg ctgctatctg ccgaccctc cactatgcta ccatcatgaa tcgacgtctc 420
 tgctgtatcc tgggtggctct ctcttgatg gggggcttca ttcattctat aatacagggtg 480
 gctctcattg ttcgacttcc tttctgtggg cccaatgagt tagacagtta cttctgtgac 540
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 cttctggcct tgctcaagaa acattcaggc tcagatgaga ataccaacag ggccatgtcc 720
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 gtcgcccatt ttgactcatt ttccctagat aaagtgggtg ctgtgtttca tactgtaata 840
 ttccctttac ttaatcccat tatttacaca ttgagaaaca aggaagtaaa ggcagccatg 900
 aggaaggtgg tcaccaaata tattttgtgt gaagagaagt ga 942

<210> 409
 <211> 348
 <212> PRT
 <213> Homo sapiens

<400> 409

Met	Leu	Thr	Ser	Leu	Thr	Asp	Leu	Cys	Phe	Ser	Pro	Ile	Gln	Val	Ala
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Glu	Ile	Lys	Ser	Leu	Pro	Lys	Ser	Met	Asn	Glu	Thr	Asn	His	Ser	Arg
			20					25					30		
Val	Thr	Glu	Phe	Val	Leu	Leu	Gly	Leu	Ser	Ser	Ser	Arg	Glu	Leu	Gln
		35					40					45			
Pro	Phe	Leu	Phe	Leu	Thr	Phe	Ser	Leu	Leu	Tyr	Leu	Ala	Ile	Leu	Leu
	50					55					60				
Gly	Asn	Phe	Leu	Ile	Ile	Leu	Thr	Val	Thr	Ser	Asp	Ser	Arg	Leu	His
65					70					75					80
Thr	Pro	Met	Tyr	Phe	Leu	Leu	Ala	Asn	Leu	Ser	Phe	Ile	Asp	Val	Cys
				85					90					95	
Val	Ala	Ser	Phe	Ala	Thr	Pro	Lys	Met	Ile	Ala	Asp	Phe	Leu	Val	Glu
			100					105					110		
Arg	Lys	Thr	Ile	Ser	Phe	Asp	Ala	Cys	Leu	Ala	Gln	Ile	Phe	Phe	Val
		115					120					125			
His	Leu	Phe	Thr	Gly	Ser	Glu	Met	Val	Leu	Leu	Val	Ser	Met	Ala	Tyr
	130					135					140				
Asp	Arg	Tyr	Val	Ala	Ile	Cys	Lys	Pro	Leu	His	Tyr	Met	Thr	Val	Met
145					150					155					160
Ser	Arg	Arg	Val	Cys	Val	Val	Leu	Val	Leu	Ile	Ser	Trp	Phe	Val	Gly
				165					170					175	
Phe	Ile	His	Thr	Thr	Ser	Gln	Leu	Ala	Phe	Thr	Val	Asn	Leu	Pro	Phe
			180					185					190		
Cys	Gly	Pro	Asn	Lys	Val	Asp	Ser	Phe	Phe	Cys	Asp	Leu	Pro	Leu	Val
		195					200					205			
Thr	Lys	Leu	Ala	Cys	Ile	Asp	Thr	Tyr	Val	Val	Ser	Leu	Leu	Ile	Val
	210					215					220				
Ala	Asp	Ser	Gly	Phe	Leu	Ser	Leu	Ser	Ser	Phe	Leu	Leu	Leu	Val	Val
225					230					235					240
Ser	Tyr	Thr	Val	Ile	Leu	Val	Thr	Val	Arg	Asn	Arg	Ser	Ser	Ala	Ser
				245					250					255	
Met	Ala	Lys	Ala	Arg	Ser	Thr	Leu	Thr	Ala	His	Ile	Thr	Val	Val	Thr
			260					265					270		

Leu Phe Phe Gly Pro Cys Ile Phe Ile Tyr Val Trp Pro Phe Ser Ser
 275 280 285
 Tyr Ser Val Asp Lys Val Leu Ala Val Phe Tyr Thr Ile Phe Thr Leu
 290 295 300
 Ile Leu Asn Pro Val Ile Tyr Thr Leu Arg Asn Lys Glu Val Lys Ala
 305 310 315 320
 Ala Met Ser Lys Leu Lys Ser Arg Tyr Leu Lys Pro Ser Gln Val Ser
 325 330 335
 Val Val Ile Arg Asn Val Leu Phe Leu Glu Thr Lys
 340 345

<210> 410
 <211> 1047
 <212> DNA
 <213> Homo sapiens

<400> 410
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 ctgtctagtt caagggagct ccaacctttc ttgtttctta catttttact actttatcta 180
 gcaattctgt tgggcaactt tctcatcatt ctcactgtga cctcagattc ccgccttcac 240
 acccccatgt actttctgct tgcaaacctg tcatttatag acgtatgtgt tgccctctttt 300
 gctaccccta aaatgattgc agactttctg gttgagcgca agactatttc ttttgatgcc 360
 tgcctggccc agattttctt tgttcatctc ttcactggca gtgaaatggt gctcctagtt 420
 tccatggcct atgaccgtta tgttgctata tgcaaacctc tccactacat gacagtcattg 480
 agccgtcgtg tatgtgttgt gctcgtcctc atttcatggg ttgtgggctt catccatact 540
 accagccagt tggcattcac tgttaatctg ccattttgtg gtcctaataa ggtagacagt 600
 tttttctgtg accttctctt agtgaccaag ttagcctgca tagacactta tgttgatcagc 660
 ttactaatag ttgcagatag ttgctttctt tctctgagtt cctttctcct cttgggtgtc 720
 tctacactg taatacttgt tacagttagg aatcgctcct ctgcaagcat ggcgaaggcc 780
 cgctccacat tgactgctca catcactgtg gtcactttat tctttggacc atgcattttc 840
 atctatgtgt ggcccttcag cagttactca gttgacaaaag tccttgctgt attctacacc 900
 atcttcacgc ttatttttaa cctgttaata tacacgctaa gaaacaaaga agtgaaggca 960
 gctatgtcaa aactgaagag tcggtatctg aagcctagtc aggtttctgt agtcataaga 1020
 aatgttcttt tctagaaac aaagtaa 1047

<210> 411
 <211> 343
 <212> PRT
 <213> Homo sapiens

<400> 411
 Met Lys Gln Tyr Ser Val Gly Asn Gln His Ser Asn Tyr Arg Ser Leu
 1 5 10 15
 Leu Phe Pro Phe Leu Cys Ser Gln Met Thr Gln Leu Thr Ala Ser Gly
 20 25 30
 Asn Gln Thr Met Val Thr Glu Phe Leu Phe Ser Met Phe Pro His Ala
 35 40 45

His Arg Gly Gly Leu Leu Phe Phe Ile Pro Leu Leu Leu Ile Tyr Gly
 50 55 60
 Phe Ile Leu Thr Gly Asn Leu Ile Met Phe Ile Val Ile Gln Val Gly
 65 70 75 80
 Met Ala Leu His Thr Pro Leu Tyr Phe Phe Ile Ser Val Leu Ser Phe
 85 90 95
 Leu Glu Ile Cys Tyr Thr Thr Thr Thr Ile Pro Lys Met Leu Ser Cys
 100 105 110
 Leu Ile Ser Glu Gln Lys Ser Ile Ser Val Ala Gly Cys Leu Leu Gln
 115 120 125
 Met Tyr Phe Phe His Ser Leu Gly Ile Thr Glu Ser Cys Val Leu Thr
 130 135 140
 Ala Met Ala Ile Asp Arg Tyr Ile Ala Ile Cys Asn Pro Leu Arg Tyr
 145 150 155 160
 Pro Thr Ile Met Ile Pro Lys Leu Cys Ile Gln Leu Thr Val Gly Ser
 165 170 175
 Cys Phe Cys Gly Phe Leu Leu Val Leu Pro Glu Ile Ala Trp Ile Ser
 180 185 190
 Thr Leu Pro Phe Cys Gly Ser Asn Gln Ile His Gln Ile Phe Cys Asp
 195 200 205
 Phe Thr Pro Val Leu Ser Leu Ala Cys Thr Asp Thr Phe Leu Val Val
 210 215 220
 Ile Val Asp Ala Ile His Ala Ala Glu Ile Val Ala Ser Phe Leu Val
 225 230 235 240
 Ile Ala Leu Ser Tyr Ile Arg Ile Ile Ile Val Ile Leu Gly Met His
 245 250 255
 Ser Ala Glu Gly His His Lys Ala Phe Ser Thr Cys Ala Ala His Leu
 260 265 270
 Ala Val Phe Leu Leu Phe Phe Gly Ser Val Ala Val Met Tyr Leu Arg
 275 280 285
 Phe Ser Ala Thr Tyr Ser Val Phe Trp Asp Thr Ala Ile Ala Val Thr
 290 295 300
 Phe Val Ile Leu Ala Pro Phe Phe Asn Pro Ile Ile Tyr Ser Leu Lys
 305 310 315 320
 Asn Lys Asp Met Lys Glu Ala Ile Gly Arg Leu Phe His Tyr Gln Lys
 325 330 335
 Arg Ala Gly Trp Ala Gly Lys
 340

<210> 412
 <211> 1032
 <212> DNA
 <213> Homo sapiens

<400> 412
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 ctgtgttcac agatgacaca gttgacggcc agtggggaatc agacaatggg gactgagttc 120
 ctcttctcta tgttcccgca tgcgcacaga ggtggcctct tattctttat tcccttgctt 180
 ctcatctacg gatttatcct aactggaaac ctaataatgt tcattgtcat ccagggtgggc 240
 atggccctgc acaccccttt gtatttcttt atcagtgtcc tctccttcct ggagatctgc 300
 tataccacaa ccaccatccc caagatgctg tcctgcctaa tcagtgagca gaagagcatt 360
 tccgtggctg gctgcctcct gcagatgtac tttttccact cacttggtat cacagaaagc 420
 tgtgtcctga cagcaatggc cattgacagg tacatagcta tctgcaatcc actccgttac 480
 ccaaccatca tgattcccaa actttgtatc cagctgacag ttggatcctg cttttgtggc 540
 ttctccttg tgcttcctga gattgcatgg atttccacct tgcctttctg tggtccaac 600
 cagatccacc agatattctg tgatttcaca cctgtgctga gcttggcctg cacagataca 660
 ttctagtggt tcattgtgga tgccatccat gcagcggaaa ttgtagcctc ctctctggct 720
 attgctctat cctacatccg gattattata gtgattctgg gaatgcactc agctgaaggt 780
 catcacaagg ccttttccac ctgtgctgct cacccttgctg tgttcttgct attttttggc 840
 agtgtggctg tcatgtattt gagattctca gccacctact cagtgttttg ggacacagca 900
 attgctgtca cttttgttat ccttgcctcc tttttcaacc ccatcatcta tagcctgaaa 960
 aacaaggaca tgaaagaggc tattggaagg cttttccact atcagaagag ggctgggttg 1020
 gctgggaaat ag 1032

<210> 413
 <211> 317
 <212> PRT
 <213> Homo sapiens

<400> 413
 Met Arg Asn Leu Ser Gly Gly His Val Glu Glu Phe Val Leu Val Gly
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 Phe Pro Thr Thr Pro Pro Leu Gln Leu Leu Leu Phe Val Leu Phe Phe
 20 25 30
 Ala Ile Tyr Leu Leu Thr Leu Leu Glu Asn Ala Leu Ile Val Phe Thr
 35 40 45
 Ile Trp Leu Ala Pro Ser Leu His Arg Pro Met Tyr Phe Phe Leu Gly
 50 55 60
 His Leu Ser Phe Leu Glu Leu Trp Tyr Ile Asn Val Thr Ile Pro Arg
 65 70 75 80
 Leu Leu Ala Ala Phe Leu Thr Gln Asp Gly Arg Val Ser Tyr Val Gly
 85 90 95
 Cys Met Thr Gln Leu Tyr Phe Phe Ile Ala Leu Ala Cys Thr Glu Cys
 100 105 110
 Val Leu Leu Ala Val Met Ala Tyr Asp Arg Tyr Leu Ala Ile Cys Gly
 115 120 125

Pro Leu Leu Tyr Pro Ser Leu Met Pro Ser Ser Leu Ala Thr Arg Leu
 130 135 140
 Ala Ala Ala Ser Trp Gly Ser Gly Phe Phe Ser Ser Met Met Lys Leu
 145 150 155 160
 Leu Phe Ile Ser Gln Leu Ser Tyr Cys Gly Pro Asn Ile Ile Asn His
 165 170 175
 Phe Phe Cys Asp Ile Ser Pro Leu Leu Asn Leu Thr Cys Ser Asp Lys
 180 185 190
 Glu Gln Ala Glu Leu Val Asp Phe Leu Leu Ala Leu Val Met Ile Leu
 195 200 205
 Leu Pro Leu Leu Ala Val Val Ser Ser Tyr Thr Ala Ile Ile Ala Ala
 210 215 220
 Ile Leu Arg Ile Pro Thr Ser Arg Gly Arg His Lys Ala Phe Ser Thr
 225 230 235 240
 Cys Ala Ala His Leu Ala Val Val Val Ile Tyr Tyr Ser Ser Thr Leu
 245 250 255
 Phe Thr Tyr Ala Arg Pro Arg Ala Met Tyr Thr Phe Asn His Asn Lys
 260 265 270
 Ile Ile Ser Val Leu Tyr Thr Ile Ile Val Pro Phe Phe Asn Pro Ala
 275 280 285
 Ile Tyr Cys Leu Arg Asn Lys Glu Val Lys Glu Ala Phe Arg Lys Thr
 290 295 300
 Val Met Gly Arg Cys His Tyr Pro Arg Asp Val Gln Asp
 305 310 315

<210> 414

<211> 954

<212> DNA

<213> Homo sapiens

<400> 414

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 gagaatgcac ttattgtcctt cacaatatgg cttgtctcaa gccttcacg tcccatgtac 180
 tttttccttg gccatctctc tttcctggag ctatggtaca tcaatgtcac cattcctcgg 240
 ctcttggcag cttttcttac ccaggatggt agagtctcct acgtagggtg catgacccaa 300
 ctgtacttct ttattgcctt agcctgtact gaatgtgtgc tgttggcagt tatggcctat 360
 gatcgctacc tggccatctg tggaccctc ctttacccta gtctcatgcc ttccagtctg 420
 gccactcgcc ttgctgctgc ctcttggggc agtggcttct tcagctccat gatgaagctt 480
 ctttttattt cccaattgtc ctactgtgga cccaacatta tcaaccactt tttctgtgat 540
 atttccccac tactcaacct cacctgctct gacaaggagc aagcagagct agtagacttc 600
 cttctggccc tggatgatgat tctactcctt ctattggctg tggtttcac atactactgcc 660
 atcattgcag ccacctctgag gatccctacg tccaggggac gccacaaagc cttttccact 720
 tgtgccgctc atctggcagt ggttggtatc tactactcct ccactctctt cacctatgca 780
 cggccccggg ccatgtacac cttcaaccac aacaagatta tctctgtgct ctacactatc 840

attgtaccat tcttcaaccc agccatctac tgcctgagga acaaggaggt gaaggaggcc 900
 ttcaggaaga cagtgatggg cagatgtcac tatcctaggg atgttcagga ctga 954

<210> 415
 <211> 313
 <212> PRT
 <213> Homo sapiens

<400> 415
 Met Gly Gln Thr Asn Val Thr Ser Trp Arg Asp Phe Val Phe Leu Gly
 1 5 10 15
 Phe Ser Ser Ser Gly Glu Leu Gln Leu Leu Leu Phe Ala Leu Phe Leu
 20 25 30
 Ser Leu Tyr Leu Val Thr Leu Thr Ser Asn Val Phe Ile Ile Ile Ala
 35 40 45
 Ile Arg Leu Asp Ser His Leu His Thr Pro Met Tyr Leu Phe Leu Ser
 50 55 60
 Phe Leu Ser Phe Ser Glu Thr Cys Tyr Thr Leu Gly Ile Ile Pro Arg
 65 70 75 80
 Met Leu Ser Gly Leu Ala Gly Gly Asp Gln Ala Ile Ser Tyr Val Gly
 85 90 95
 Cys Ala Ala Gln Met Phe Phe Ser Ala Ser Trp Ala Cys Thr Asn Cys
 100 105 110
 Phe Leu Leu Ala Ala Met Gly Phe Asp Arg Tyr Val Ala Ile Cys Ala
 115 120 125
 Pro Leu His Tyr Ala Ser His Met Asn Pro Thr Leu Cys Ala Gln Leu
 130 135 140
 Val Ile Thr Ser Phe Leu Thr Gly Tyr Leu Phe Gly Leu Gly Met Thr
 145 150 155 160
 Leu Val Ile Phe His Leu Ser Phe Cys Ser Ser His Glu Ile Gln His
 165 170 175
 Phe Phe Cys Asp Thr Pro Pro Val Leu Ser Leu Ala Cys Gly Asp Thr
 180 185 190
 Gly Pro Ser Glu Leu Arg Ile Phe Ile Leu Ser Leu Leu Val Leu Leu
 195 200 205
 Val Ser Phe Phe Phe Ile Thr Ile Ser Tyr Ala Tyr Ile Leu Ala Ala
 210 215 220
 Ile Leu Arg Ile Pro Ser Ala Glu Gly Gln Lys Lys Ala Phe Ser Thr
 225 230 235 240
 Cys Ala Ser His Leu Thr Val Val Ile Ile His Tyr Gly Cys Ala Ser
 245 250 255

Phe Val Tyr Leu Arg Pro Lys Ala Ser Tyr Ser Leu Glu Arg Asp Gln
 260 265 270
 Leu Ile Ala Met Thr Tyr Thr Val Val Thr Pro Leu Leu Asn Pro Ile
 275 280 285
 Val Tyr Ser Leu Arg Thr Arg Ala Ile Gln Thr Ala Leu Arg Asn Ala
 290 295 300
 Phe Arg Gly Arg Leu Leu Gly Lys Gly
 305 310

<210> 416
 <211> 942
 <212> DNA
 <213> Homo sapiens

<400> 416
 atggggcaga ccaacgtaac ctcttgagg gattttgtct tcctgggctt ctccagttct 60
 ggggagttgc agctccttct ctttgccctg ttctctctct tgtatctagt cactctgacc 120
 agcaatgtct tcattatcat agccatcagg ctggatagcc atctgcacac ccccatgtac 180
 ctcttccttt ccttcctatc cttctctgag acctgctaca ctttgggcat catccctaga 240
 atgctctctg gcctggctgg gggggaccag gctatctcct atgtgggctg tgctgcccag 300
 atgttctttt ctgcctcatg ggctgtact aactgcttcc ttctggctgc catgggcttt 360
 gacagatatg tggccatctg tgcctcactc cactatgcca gccacatgaa tcctaccctc 420
 tgtgcccagc tggtcattac ttcttctctg actggatacc tctttggact gggaatgaca 480
 ctagttattt tccacctctc attctgcagc tcccatgaaa tccagcactt tttttgtgac 540
 acgccacctg tgctgagcct agcctgtgga gatacaggcc cgagtgaact gaggatcttt 600
 atcctcagtc ttttggtcct cttgggtctc ttcttcttca tcaccatctc ctacgcctac 660
 atcttggcag caatactgag gateccctct gctgaggggc agaagaaggc cttctccact 720
 tgtgcctcgc accttacagt ggtcattatt cattatggct gtgcttctt cgtgtacctg 780
 aggcccaaag ccagctactc tcttgagaga gatcagctta ttgccatgac ctatactgta 840
 gtgaccccc tccttaatcc cattgtttat agtctaagga ctagggtat acagacagct 900
 ctgaggaatg ctttcagagg gagattgctg ggtaaaggat ga 942

<210> 417
 <211> 316
 <212> PRT
 <213> Homo sapiens

<400> 417
 Met Glu Ala Ala Asn Glu Ser Ser Glu Gly Ile Ser Phe Val Leu Leu
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 Gly Leu Thr Thr Ser Pro Gly Gln Gln Arg Pro Leu Phe Val Leu Phe
 20 25 30
 Leu Leu Leu Tyr Val Ala Ser Leu Leu Gly Asn Gly Leu Ile Val Ala
 35 40 45
 Ala Ile Gln Ala Ser Pro Ala Leu His Ala Pro Met Tyr Phe Leu Leu
 50 55 60
 Ala His Leu Ser Phe Ala Asp Leu Cys Phe Ala Ser Val Thr Val Pro

65		70		75		80
Lys Met Leu Ala Asn Leu Leu Ala His Asp His Ser Ile Ser Leu Ala						
	85			90		95
Gly Cys Leu Thr Gln Met Tyr Phe Phe Phe Ala Leu Gly Val Thr Asp						
	100			105		110
Ser Cys Leu Leu Ala Ala Met Ala Tyr Asp Cys Tyr Val Ala Ile Arg						
	115			120		125
His Pro Leu Pro Tyr Ala Thr Arg Met Ser Arg Ala Met Cys Ala Ala						
	130			135		140
Leu Val Gly Met Ala Trp Leu Val Ser His Val His Ser Leu Leu Tyr						
	145			150		155
Ile Leu Leu Met Ala Arg Leu Ser Phe Cys Ala Ser His Gln Val Pro						
	165			170		175
His Phe Phe Cys Asp His Gln Pro Leu Leu Arg Leu Ser Cys Ser Asp						
	180			185		190
Thr His His Ile Gln Leu Leu Ile Phe Thr Glu Gly Ala Ala Val Val						
	195			200		205
Val Thr Pro Phe Leu Leu Ile Leu Ala Ser Tyr Gly Ala Ile Ala Ala						
	210			215		220
Ala Val Leu Gln Leu Pro Ser Ala Ser Gly Arg Leu Arg Ala Val Ser						
	225			230		235
Thr Cys Gly Ser His Leu Ala Val Val Ser Leu Phe Tyr Gly Thr Val						
	245			250		255
Ile Ala Val Tyr Phe Gln Ala Thr Ser Arg Arg Glu Ala Glu Trp Gly						
	260			265		270
Arg Val Ala Thr Val Met Tyr Thr Val Val Thr Pro Met Leu Asn Pro						
	275			280		285
Ile Ile Tyr Ser Leu Trp Asn Arg Asp Val Gln Gly Ala Leu Arg Ala						
	290			295		300
Leu Leu Ile Gly Arg Arg Ile Ser Ala Ser Asp Ser						
	305			310		315

<210> 418

<211> 951

<212> DNA

<213> Homo sapiens

<400> 418

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 agtcctggac agcagcggcc tctctttgtg ctgttcttgc tcttgatatgt ggccagcctc 120
 ctgggtaatg gactcattgt ggctgccatc caggccagtc cagcccttca tgcacccatg 180

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tacttcctgc tggcccacct gtccttttgc gacctctgtt tcgcctccgt cactgtgccc 240
aagatgttgg ccaacttggt ggcccatgac cactccatct cgctggctgg ctgcctgacc 300
caaatgtact tcttctttgc cctgggggta actgatagct gtcttctggc ggccatggcc 360
tatgactgct acgtggccat ccggcaccct ctccctatg ccacgaggat gtcccggggc 420
atgtgcgag ccctgggtggg aatggcatgg ctgggtgtccc acgtccactc cctcctgtat 480
atcctgctca tggctcgctt gtccttctgt gcttcccacc aagtgcccc a t t t t t t g t 540
gaccaccagc ctctcttaag gctctcgtgc tctgacaccc accacatcca gctgctcatc 600
ttcaccgagg gcgcgcagat ggtgggtcact cccttcctgc tcatcctcgc ctccctatggg 660
gccatcgag ctgccgtgct ccagctgccc tcagcctctg ggaggctccg ggctgtgtcc 720
acctgtggct cccacctggc tgtgggtgag ctcttctatg ggacagtcac tgcagtctac 780
ttccaggcca catcccgacg cgaggcagag tggggccgtg tggccactgt catgtacact 840
gtagtcaccc ccctgctgaa ccccatcatc tacagcctct ggaatcgca tgtacagggg 900
gcactccgag cccttctcat tgggcgaagg atctcagcta gtgactcctg a 951

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<210> 419
 <211> 311
 <212> PRT
 <213> Homo sapiens

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<400> 419
Met Gly Ser Phe Asn Thr Ser Phe Glu Asp Gly Phe Ile Leu Val Gly
  1              5              10              15

Phe Ser Asp Trp Pro Gln Leu Glu Pro Ile Leu Phe Val Phe Ile Phe
      20              25              30

Ile Phe Tyr Ser Leu Thr Leu Phe Gly Asn Thr Ile Ile Ile Ala Leu
      35              40              45

Ser Trp Leu Asp Leu Arg Leu His Thr Pro Met Tyr Phe Phe Leu Ser
      50              55              60

His Leu Ser Leu Leu Asp Leu Cys Phe Thr Thr Ser Thr Val Pro Gln
      65              70              75              80

Leu Leu Ile Asn Leu Cys Gly Val Asp Arg Thr Ile Thr Arg Gly Gly
      85              90              95

Cys Val Ala Gln Leu Phe Ile Tyr Leu Ala Leu Gly Ser Thr Glu Cys
      100              105              110

Val Leu Leu Val Val Met Ala Phe Asp Arg Tyr Ala Ala Val Cys Arg
      115              120              125

Pro Leu His Tyr Met Ala Ile Met His Pro His Leu Cys Gln Thr Leu
      130              135              140

Ala Ile Ala Ser Trp Gly Ala Gly Phe Val Asn Ser Leu Ile Gln Thr
      145              150              155              160

Gly Leu Ala Met Ala Met Pro Leu Cys Gly His Arg Leu Asn His Phe
      165              170              175

Phe Cys Glu Met Pro Val Phe Leu Lys Leu Ala Cys Ala Asp Thr Glu
      180              185              190

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Gly Thr Glu Ala Lys Met Phe Val Ala Arg Val Ile Val Val Ala Val
 195 200 205
 Pro Ala Ala Leu Ile Leu Gly Ser Tyr Val His Ile Ala His Ala Val
 210 215 220
 Leu Arg Val Lys Ser Thr Ala Gly Arg Arg Lys Ala Phe Gly Thr Cys
 225 230 235 240
 Gly Ser His Leu Leu Val Val Phe Leu Phe Tyr Gly Ser Ala Ile Tyr
 245 250 255
 Thr Tyr Leu Gln Ser Ile His Asn Tyr Ser Glu Arg Glu Gly Lys Phe
 260 265 270
 Val Ala Leu Phe Tyr Thr Ile Ile Thr Pro Ile Leu Asn Pro Leu Ile
 275 280 285
 Tyr Thr Leu Arg Asn Lys Asp Val Lys Gly Ala Leu Trp Lys Val Leu
 290 295 300
 Trp Arg Gly Arg Asp Ser Gly
 305 310

<210> 420
 <211> 936
 <212> DNA
 <213> Homo sapiens

<400> 420
 atggggaagtt tcaacaccag ttttgaagat ggcttcattt tgggtgggatt ctcagattgg 60
 ccgcaactgg agcccatcct gtttgtcttt atttttattt tctactccct aactctcttt 120
 ggcaacacca tcatcatcgc tctctcctgg ctagaccttc ggctgcacac acctatgtac 180
 ttctttctct ctcactgtgc cctcctggac ctctgcttca ccaccagcac cgtgccccag 240
 ctctgatca acctttgcgg ggtggaccgc accatcaccc gtggaggggtg tgtggctcag 300
 ctcttcatct acctagccct gggctccaca gagtgtgtgc tcctgggtgtg gatggccttt 360
 gaccgctatg ctgctgtctg tcgtccactc cactacatgg ccatcatgca ccccatctc 420
 tgccagagacc tggctatcgc ctctgggggt gcgggtttcg tgaactctct gatccagaca 480
 ggtctcgcaa tggccatgcc tctctgtggc catcgactga atcacttctt ctgtgagatg 540
 cctgtatttc tgaagttggc ttgtgcggac acagaaggaa cagaggccaa gatgtttgtg 600
 gcccgagtca tagtcgtggc tgttcttgca gcacttattc taggctccta tgtgcacatt 660
 gctcatgcag tgctgagggt gaagtcaacg gctgggcgca gaaaggcttt tgggacttgt 720
 ggggtcccacc tcctagtagt tttccttttt tatggctcag ccatctacac atatctccaa 780
 tccatccaca attattctga gcgtgaggga aaatttggtg ccctttttta tactataatt 840
 acccccattc tcaatcctct catttataca ctaagaaaca aggacgtgaa ggggggtctg 900
 tggaaagtac tatggagggg cagggactca gggtag 936

<210> 421
 <211> 312
 <212> PRT
 <213> Homo sapiens

<400> 421
 Met Glu Asn Tyr Asn Gln Thr Ser Thr Asp Phe Ile Leu Leu Gly Leu
 1 5 10 15

Phe Pro Pro Ser Ile Ile Asp Leu Phe Phe Phe Ile Leu Ile Val Phe
20 25 30
Ile Phe Leu Met Ala Leu Ile Gly Asn Leu Ser Met Ile Leu Leu Ile
35 40 45
Phe Leu Asp Thr His Leu His Thr Pro Met Tyr Phe Leu Leu Ser Gln
50 55 60
Leu Ser Leu Ile Asp Leu Asn Tyr Ile Ser Thr Ile Val Pro Lys Met
65 70 75 80
Ala Ser Asp Phe Leu His Gly Asn Lys Ser Ile Ser Phe Thr Gly Cys
85 90 95
Gly Ile Gln Ser Phe Phe Phe Leu Ala Leu Gly Gly Ala Glu Ala Leu
100 105 110
Leu Leu Ala Ser Met Ala Tyr Asp Arg Tyr Ile Ala Ile Cys Phe Pro
115 120 125
Leu His Tyr Leu Ile Arg Met Ser Lys Arg Val Cys Val Leu Met Ile
130 135 140
Thr Gly Ser Trp Ile Ile Gly Ser Ile Asn Ala Cys Ala His Thr Val
145 150 155 160
Tyr Val Leu His Ile Pro Tyr Cys Arg Ser Arg Ala Ile Asn His Phe
165 170 175
Phe Cys Asp Val Pro Ala Met Val Thr Leu Ala Cys Met Asp Thr Trp
180 185 190
Val Tyr Glu Gly Thr Val Phe Leu Ser Ala Thr Ile Phe Leu Val Phe
195 200 205
Pro Phe Ile Gly Ile Ser Cys Ser Tyr Gly Gln Val Leu Phe Ala Val
210 215 220
Tyr His Met Lys Ser Ala Glu Gly Arg Lys Lys Ala Tyr Leu Thr Cys
225 230 235 240
Ser Thr His Leu Thr Val Val Thr Phe Tyr Tyr Ala Pro Phe Val Tyr
245 250 255
Thr Tyr Leu Arg Pro Arg Ser Leu Arg Ser Pro Thr Glu Asp Lys Val
260 265 270
Leu Ala Val Phe Tyr Thr Ile Leu Thr Pro Met Leu Asn Pro Ile Ile
275 280 285
Tyr Ser Leu Arg Asn Lys Glu Val Met Gly Ala Leu Thr Arg Val Ser
290 295 300
Gln Arg Ile Cys Ser Val Lys Met
305 310

<210> 422
 <211> 939
 <212> DNA
 <213> Homo sapiens

<400> 422
 atggaaaatt acaatcaaac atcaactgat ttcattcttat tggggctggt tccaccatca 60
 ataattgacc ttttcttctt cattctcatt gttttcattt tcctgatggc tctaattgga 120
 aacctgtcca tgattcttct catcttcttg gacacccatc tccacacacc catgtatttc 180
 ctactgagtc agctctccct cattgaccta aattacatct ccaccattgt tcctaagatg 240
 gcatctgatt ttctgcatgg aaacaagtct atctccttca ctgggtgtgg gattcagagt 300
 ttcttcttct tggcattagg aggtgcagaa gcactacttt tggcatctat ggcctatgat 360
 cgttacattg ctatttgctt tcctctccac tatctcatcc gcatgagcaa aagagtgtgt 420
 gtgctgatga taacagggtc ttggatcata ggctcgatca atgcttgtgc tcacactgta 480
 tatgtactcc atattcctta ttgccgatcc agggccatca atcatttctt ctgtgatgtc 540
 ccagcaatgg tgactctggc ctgcatggac acctgggtct atgagggcac agtgtttttg 600
 agtgccacca tctttctcgt gtttcccttc attggtattt catgttctta tggccagggt 660
 ctctttgctg tctaccacat gaaatctgca gaaggaggga agaaagccta tttgacctgc 720
 agcaccaccc tcactgtagt aactttctac tatgcacctt ttgtctacac ttatctacgt 780
 ccaagatccc tgcgatctcc aacagaggac aaggttctgg ctgtcttcta caccatcctc 840
 accccaatgc tcaaccccat catctatagc ctgaggaaca aggaggtgat gggggccctg 900
 acacgagtga gtcagagaat ctgctctgtg aaaatgtag 939

<210> 423
 <211> 327
 <212> PRT
 <213> Homo sapiens

<400> 423
 Met Glu Trp Arg Asn His Ser Gly Arg Val Ser Glu Phe Val Leu Leu
 1 5 10 15
 Gly Phe Pro Ala Pro Ala Pro Leu Gln Val Leu Leu Phe Ala Leu Leu
 20 25 30
 Leu Leu Ala Tyr Val Leu Val Leu Thr Glu Asn Thr Leu Ile Ile Met
 35 40 45
 Ala Ile Arg Asn His Ser Thr Leu His Lys Pro Met Tyr Phe Phe Leu
 50 55 60
 Ala Asn Met Ser Phe Leu Glu Ile Trp Tyr Val Thr Val Thr Ile Pro
 65 70 75 80
 Lys Met Leu Ala Gly Phe Val Gly Ser Lys Gln Asp His Gly Gln Leu
 85 90 95
 Ile Ser Phe Glu Gly Cys Met Thr Gln Leu Tyr Phe Phe Leu Gly Leu
 100 105 110
 Gly Cys Thr Glu Cys Val Leu Leu Ala Val Met Ala Tyr Asp Arg Tyr
 115 120 125
 Met Ala Ile Cys Tyr Pro Leu His Tyr Pro Val Ile Val Ser Gly Arg

130	135	140
Leu Cys Val Gln Met Ala Ala Gly Ser Trp Ala Gly Gly Phe Gly Ile		
145	150	155 160
Ser Met Val Lys Val Phe Leu Ile Ser Gly Leu Ser Tyr Cys Gly Pro		
	165	170 175
Asn Ile Ile Asn His Phe Phe Cys Asp Val Ser Pro Leu Leu Asn Leu		
	180	185 190
Ser Cys Thr Asp Met Ser Thr Ala Glu Leu Thr Asp Phe Ile Leu Ala		
	195	200 205
Ile Phe Ile Leu Leu Gly Pro Leu Ser Val Thr Gly Ala Ser Tyr Val		
	210	215 220
Ala Ile Thr Gly Ala Val Met His Ile Ser Ser Ala Ala Gly Arg Tyr		
	225	230 235 240
Lys Ala Phe Ser Thr Cys Ala Ser His Leu Thr Val Val Ile Ile Phe		
	245	250 255
Tyr Ala Ala Ser Ile Phe Ile Tyr Ala Arg Pro Lys Ala Leu Ser Ala		
	260	265 270
Phe Asp Thr Asn Lys Leu Val Ser Val Leu Tyr Ala Val Ile Val Pro		
	275	280 285
Leu Leu Asn Pro Ile Ile Tyr Cys Leu Arg Asn Gln Glu Val Lys Arg		
	290	295 300
Ala Leu Cys Cys Thr Leu His Leu Tyr Gln His Gln Asp Pro Asp Pro		
	305	310 315 320
Lys Lys Ala Ser Arg Asn Val		
	325	

<210> 424

<211> 984

<212> DNA

<213> Homo sapiens

<400> 424

atggagtggc	ggaaccatag	tgggagagtg	agtgagtgtg	tggtgctggg	cttccctgct	60
cctgcgccac	tacaggtact	attgtttgcc	cttttgctgc	tggcctatgt	gttggtgctg	120
actgagaaca	cactcatcat	tatggcaatt	aggaaccatt	ctaccctcca	caaaccatg	180
tacttttttc	tagctaatat	gtcctttctg	gagatctggg	atgtcactgt	cactattccc	240
aagatgcttg	ctggctttgt	tggatccaaa	caggatcatg	gacagcta	ctcctttgag	300
ggatgcatga	cacagctcta	ctttttcctt	ggcttgggct	gcactgagt	tgctcttctc	360
gctgttatgg	cctatgatcg	ctatatggcc	atctgctatc	ctctccacta	cccagtcatt	420
gtcagtggcc	ggctgtgtgt	gcagatggct	gctggctctt	gggctggagg	ttttggcatc	480
tccatgggtca	aagtttttct	tatttctggc	ctctcttact	gtggccccaa	catcatcaac	540
cactttttct	gtgatgtctc	tccattgtct	aacctctcat	gcactgat	gtccacagca	600
gagcttacag	atttcatcct	ggccattttt	attcttctag	ggccactctc	tgctactggg	660
gcctcctatg	tggccattac	tggtgctgtg	atgcacatat	cttcggctgc	tggacgctat	720

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aaggcctttt ccacctgtgc ctctcatctc actgttggtga taatcttcta tgcagccagt 780
atcttcatct atgctcggcc aaaggcactc tcagcttttg acaccaacaa gttgggtctct 840
gtactgtatg ctgtcattgt accattgctc aatcccatca tttactgcct gcgcaatcaa 900
gaggtcaaga gagccctatg ctgtactctg cacctgtacc agcaccagga tcctgacccc 960
aagaaagcta gcagaaatgt atag                                     984

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<210> 425
<211> 322
<212> PRT
<213> Homo sapiens

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```

<400> 425
Met Glu Pro Gln Asn Thr Ser Thr Val Thr Asn Phe Gln Leu Leu Gly
  1              5              10              15

Phe Gln Asn Leu Leu Glu Trp Gln Ala Leu Leu Phe Val Ile Phe Leu
      20              25              30

Leu Ile Tyr Cys Leu Thr Ile Ile Gly Asn Val Val Ile Ile Thr Val
      35              40              45

Val Ser Gln Gly Leu Arg Leu His Ser Pro Met Tyr Met Phe Leu Gln
      50              55              60

His Leu Ser Phe Leu Glu Val Trp Tyr Thr Ser Thr Thr Val Pro Leu
      65              70              75              80

Leu Leu Ala Asn Leu Leu Ser Trp Gly Gln Ala Ile Ser Phe Ser Ala
      85              90              95

Cys Met Ala Gln Leu Tyr Phe Phe Val Phe Leu Gly Ala Thr Glu Cys
      100              105              110

Phe Leu Leu Ala Phe Met Ala Tyr Asp Arg Tyr Leu Ala Ile Cys Ser
      115              120              125

Pro Leu Arg Tyr Pro Phe Leu Met His Arg Gly Leu Cys Ala Arg Leu
      130              135              140

Val Val Val Ser Trp Cys Thr Gly Val Ser Thr Gly Phe Leu His Ser
      145              150              155              160

Met Met Ile Ser Arg Leu Asp Phe Cys Gly Arg Asn Gln Ile Asn His
      165              170              175

Phe Phe Cys Asp Leu Pro Pro Leu Met Gln Leu Ser Cys Ser Arg Val
      180              185              190

Tyr Ile Thr Glu Val Thr Ile Phe Ile Leu Ser Ile Ala Val Leu Cys
      195              200              205

Ile Cys Phe Phe Leu Thr Leu Gly Pro Tyr Val Phe Ile Val Ser Ser
      210              215              220

Ile Leu Arg Ile Pro Ser Thr Ser Gly Arg Arg Lys Thr Phe Ser Thr
      225              230              235              240

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Thr Leu Ser Phe Trp Val Cys Ser Ala Thr Pro Val Ser Pro Gly Phe
 35 40 45
 Phe Ala Leu Ile Leu Leu Val Phe Val Thr Ser Ile Ala Ser Asn Val
 50 55 60
 Val Lys Ile Ile Leu Ile His Ile Asp Ser Arg Leu His Thr Pro Met
 65 70 75 80
 Tyr Phe Leu Leu Ser Gln Leu Ser Leu Arg Asp Ile Leu Tyr Ile Ser
 85 90 95
 Thr Ile Val Pro Lys Met Leu Val Asp Gln Val Met Ser Gln Arg Ala
 100 105 110
 Ile Ser Phe Ala Gly Cys Thr Ala Gln His Phe Leu Tyr Leu Thr Leu
 115 120 125
 Ala Gly Ala Glu Phe Phe Leu Leu Gly Leu Met Ser Cys Asp Arg Tyr
 130 135 140
 Val Ala Ile Cys Asn Pro Leu His Tyr Pro Asp Leu Met Ser Arg Lys
 145 150 155 160
 Ile Cys Trp Leu Ile Val Ala Ala Ala Trp Leu Gly Gly Ser Ile Asp
 165 170 175
 Gly Phe Leu Leu Thr Pro Val Thr Met Gln Phe Pro Phe Cys Ala Ser
 180 185 190
 Arg Glu Ile Asn His Phe Phe Cys Glu Val Pro Ala Leu Leu Lys Leu
 195 200 205
 Ser Cys Thr Asp Thr Ser Ala Tyr Glu Thr Ala Met Tyr Val Cys Cys
 210 215 220
 Ile Met Met Leu Leu Ile Pro Phe Ser Val Ile Ser Gly Ser Tyr Thr
 225 230 235 240
 Arg Ile Leu Ile Thr Val Tyr Arg Met Ser Glu Ala Glu Gly Arg Arg
 245 250 255
 Lys Ala Val Ala Thr Cys Ser Ser His Met Val Val Val Ser Leu Phe
 260 265 270
 Tyr Gly Ala Ala Met Tyr Thr Tyr Val Leu Pro His Ser Tyr His Thr
 275 280 285
 Pro Glu Gln Asp Lys Ala Val Ser Ala Phe Tyr Thr Ile Leu Thr Pro
 290 295 300
 Met Leu Asn Pro Leu Ile Tyr Ser Leu Arg Asn Lys Asp Val Thr Gly
 305 310 315 320
 Ala Leu Gln Lys Val Val Gly Arg Cys Val Ser Ser Gly Lys Val Thr
 325 330 335

Thr Phe

<210> 428

<211> 1017

<212> DNA

<213> Homo sapiens

<400> 428

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atgttttatg taaatcagat acctttccaa ctttatcata tctctttcgt gtaccctaca 60
gagctatgga gcagagcaat tattccgtgt atgccgactt tatccttctg ggtttggtca 120
gcaacgcccc tttcccctgg cttctttgcc ctcattctcc tggcttttgt gacctccata 180
gccagcaacg tggtaaatg cattctcatc cacatagact cccgcctcca caccctcatg 240
tacttcctgc tcagccagct ctccctcagg gacatcctgt atatttccac cattgtgccc 300
aaaatgctgg tcgaccaggt gatgagccag agagccattt cctttgctgg atgcactgcc 360
caacacttcc tctacttgac ctttagcagg gctgagttct tcctcctagg actcatgtcc 420
tgtgatcgct acgtagccat ctgcaaccct ctgcactatc ctgacctcat gagccgcaag 480
atctgctggt tgattgtggc ggcagcctgg ctgggagggg ctatcgatgg tttcttgctc 540
acccccgtca ccatgcagtt ccccttctgt gcctctcggg agatcaacca cttcttctgc 600
gaggtgcctg cccttctgaa gctctctgc acggacacat cagcctacga gacagccatg 660
tatgtctgct gtattatgat gctcctcatc ctttctctg tgatctcggg ctcttacaca 720
agaattctca ttactgttta taggatgagc gaggcagagg ggaggcgaaa ggctgtggcc 780
acctgctcct cacacatggt ggttgctcag ctcttctatg gggctgccat gtacacatac 840
gtgctgcctc attcttacca caccctgag caggacaaag ctgtatctgc cttctacacc 900
atcctcactc ccatgctcaa tccactcatt tacagcctta ggaacaagga tgtcacgggg 960
gccctacaga aggttggttg gaggtgtgtg tcctcaggaa aggtaaccac tttctaa 1017
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<210> 429

<211> 324

<212> PRT

<213> Homo sapiens

<400> 429

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Met Gly Met Glu Gly Leu Leu Gln Asn Ser Thr Asn Phe Val Leu Thr
  1              5              10              15

Gly Leu Ile Thr His Pro Ala Phe Pro Gly Leu Leu Phe Ala Ile Val
  20              25              30

Phe Ser Ile Phe Val Val Ala Ile Thr Ala Asn Leu Val Met Ile Leu
  35              40              45

Leu Ile His Met Asp Ser Arg Leu His Thr Pro Met Tyr Phe Leu Leu
  50              55              60

Ser Gln Leu Ser Ile Met Asp Thr Ile Tyr Ile Cys Ile Thr Val Pro
  65              70              75              80

Lys Met Leu Gln Asp Leu Leu Ser Lys Asp Lys Thr Ile Ser Phe Leu
  85              90              95

Gly Cys Ala Val Gln Ile Phe Leu Tyr Leu Thr Leu Ile Gly Gly Glu
 100              105              110

Phe Phe Leu Leu Gly Leu Met Ala Tyr Asp Arg Tyr Val Ala Val Cys
```

115	120	125
Asn Pro Leu Arg Tyr Pro Leu Leu Met Asn Arg Arg Val Cys Leu Phe 130 135 140		
Met Val Val Gly Ser Trp Val Gly Gly Ser Leu Asp Gly Phe Met Leu 145 150 155 160		
Thr Pro Val Thr Met Ser Phe Pro Phe Cys Arg Ser Arg Glu Ile Asn 165 170 175		
His Phe Phe Cys Glu Ile Pro Ala Val Leu Lys Leu Ser Cys Thr Asp 180 185 190		
Thr Ser Leu Tyr Glu Thr Leu Met Tyr Ala Cys Cys Val Leu Met Leu 195 200 205		
Leu Ile Pro Leu Ser Val Ile Ser Val Ser Tyr Thr His Ile Leu Leu 210 215 220		
Thr Val His Arg Met Asn Ser Ala Glu Gly Arg Arg Lys Ala Phe Ala 225 230 235 240		
Thr Cys Ser Ser His Ile Met Val Val Ser Val Phe Tyr Gly Ala Ala 245 250 255		
Phe Tyr Thr Asn Val Leu Pro His Ser Tyr His Thr Pro Glu Lys Asp 260 265 270		
Lys Val Val Ser Ala Phe Tyr Thr Ile Leu Thr Pro Met Leu Asn Pro 275 280 285		
Leu Ile Tyr Ser Leu Arg Asn Lys Asp Val Ala Ala Ala Leu Arg Lys 290 295 300		
Val Leu Gly Arg Cys Gly Ser Ser Gln Ser Ile Arg Val Ala Thr Val 305 310 315 320		
Ile Arg Lys Gly		

<210> 430
 <211> 975
 <212> DNA
 <213> Homo sapiens

<400> 430
 atgggcatgg aggggtcttct ccagaactcc actaacttcg tcttcacagg cctcatcacc 60
 catcctgcct tccccgggct tctctttgca atagtcttct ccatctttgt ggtggctata 120
 acagccaact tggatcatgat tctgctcatc cacatggact cccgcctcca cacacccatg 180
 tacttcttgc tcagccagct ctccatcatg gataccatct acatctgtat cactgtcccc 240
 aagatgctcc aggacctcct gtccaaggac aagaccattt ccttcctggg ctgtgcagtt 300
 cagatcttcc tctacctgac cctgattgga ggggaattct tctgctggg tctcatggcc 360
 tatgaccgct atgtggctgt gtgcaaccct ctacgggtacc ctctcctcat gaaccgcagg 420
 gtttgcttat tcatgggtgt cggctcctgg gttggtggtt ccttggtatg gttcatgctg 480
 actcctgtca ctatgagttt ccccttctgt agatcccagag agatcaatca ctttttctgt 540

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gagatcccag ccgtgctgaa gttgtcttgc acagacacgt cactctatga gaccctgatg 600
tatgcctgct gcgtgctgat gctgcttatt cctctatctg tcattctctgt ctccctacacg 660
cacatcctcc tgactgtcca caggatgaac tctgctgagg gccggcgcaa agccttttgct 720
acgtgttcct cccacattat ggtgggtgagc gttttctacg gggcagcctt ctacaccaac 780
gtgctgcccc actcctacca cactccagag aaagataaag tgggtgtctgc cttctacacc 840
atcctcaccc ccattgctcaa cccactcatc tacagcttga ggaataaaga tgtgggtgca 900
gctctgagga aagtactagg gagatgtggg tcctcccaga gcatcagggt ggcgactgtg 960
atcaggaagg gctag 975

```

<210> 431
 <211> 975
 <212> PRT
 <213> Homo sapiens

```

<400> 431
Ala Thr Gly Gly Gly Cys Ala Thr Gly Gly Ala Gly Gly Gly Thr Cys
 1              5              10              15

Thr Thr Cys Thr Cys Cys Ala Gly Ala Ala Cys Thr Cys Cys Ala Cys
      20              25              30

Thr Ala Ala Cys Thr Thr Cys Gly Thr Cys Cys Thr Cys Ala Cys Ala
      35              40              45

Gly Gly Cys Cys Thr Cys Ala Thr Cys Ala Cys Cys Cys Ala Thr Cys
 50              55              60

Cys Thr Gly Cys Cys Thr Thr Cys Cys Cys Cys Gly Gly Gly Cys Thr
 65              70              75              80

Thr Cys Thr Cys Thr Thr Thr Gly Cys Ala Ala Thr Ala Gly Thr Cys
      85              90              95

Thr Thr Cys Thr Cys Cys Ala Thr Cys Thr Thr Thr Gly Thr Gly Gly
 100              105              110

Thr Gly Gly Cys Thr Ala Thr Ala Ala Cys Ala Gly Cys Cys Ala Ala
 115              120              125

Cys Thr Thr Gly Gly Thr Cys Ala Thr Gly Ala Thr Thr Cys Thr Gly
 130              135              140

Cys Thr Cys Ala Thr Cys Cys Ala Cys Ala Thr Gly Gly Ala Cys Thr
 145              150              155              160

Cys Cys Cys Gly Cys Cys Thr Cys Cys Ala Cys Ala Cys Ala Cys Cys
      165              170              175

Cys Ala Thr Gly Thr Ala Cys Thr Thr Cys Thr Thr Gly Cys Thr Cys
      180              185              190

Ala Gly Cys Cys Ala Gly Cys Thr Cys Thr Cys Cys Ala Thr Cys Ala
      195              200              205

Thr Gly Gly Ala Thr Ala Cys Cys Ala Thr Cys Thr Ala Cys Ala Thr
 210              215              220

```


Cys Thr Gly Thr Ala Thr Cys Ala Cys Thr Gly Thr Cys Cys Cys Cys
 225 230 235 240
 Ala Ala Gly Ala Thr Gly Cys Thr Cys Cys Ala Gly Gly Ala Cys Cys
 245 250 255
 Thr Cys Cys Thr Gly Thr Cys Cys Ala Ala Gly Gly Ala Cys Ala Ala
 260 265 270
 Gly Ala Cys Cys Ala Thr Thr Thr Cys Cys Thr Thr Cys Cys Thr Gly
 275 280 285
 Gly Gly Cys Thr Gly Thr Gly Cys Ala Gly Thr Thr Cys Ala Gly Ala
 290 295 300
 Thr Cys Thr Thr Cys Cys Thr Cys Thr Ala Cys Cys Thr Gly Ala Cys
 305 310 315 320
 Cys Cys Thr Gly Ala Thr Thr Gly Gly Ala Gly Gly Gly Gly Ala Ala
 325 330 335
 Thr Thr Cys Thr Thr Cys Cys Thr Gly Cys Thr Gly Gly Gly Thr Cys
 340 345 350
 Thr Cys Ala Thr Gly Gly Cys Cys Thr Ala Thr Gly Ala Cys Cys Gly
 355 360 365
 Cys Thr Ala Thr Gly Thr Gly Gly Cys Thr Gly Thr Gly Thr Gly Cys
 370 375 380
 Ala Ala Cys Cys Cys Thr Cys Thr Ala Cys Gly Gly Thr Ala Cys Cys
 385 390 395 400
 Cys Thr Cys Thr Cys Cys Thr Cys Ala Thr Gly Ala Ala Cys Cys Gly
 405 410 415
 Cys Ala Gly Gly Gly Thr Thr Thr Gly Cys Thr Thr Ala Thr Thr Cys
 420 425 430
 Ala Thr Gly Gly Thr Gly Gly Thr Cys Gly Gly Cys Thr Cys Cys Thr
 435 440 445
 Gly Gly Gly Thr Thr Gly Gly Thr Gly Gly Thr Thr Cys Cys Thr Thr
 450 455 460
 Gly Gly Ala Thr Gly Gly Gly Thr Thr Cys Ala Thr Gly Cys Thr Gly
 465 470 475 480
 Ala Cys Thr Cys Cys Thr Gly Thr Cys Ala Cys Thr Ala Thr Gly Ala
 485 490 495
 Gly Thr Thr Thr Cys Cys Cys Cys Thr Thr Cys Thr Gly Thr Ala Gly
 500 505 510
 Ala Thr Cys Cys Cys Gly Ala Gly Ala Gly Ala Thr Cys Ala Ala Thr
 515 520 525

Cys Ala Cys Thr Thr Thr Thr Thr Cys Thr Gly Thr Gly Ala Gly Ala
 530 535 540
 Thr Cys Cys Cys Ala Gly Cys Cys Gly Thr Gly Cys Thr Gly Ala Ala
 545 550 555 560
 Gly Thr Thr Gly Thr Cys Thr Thr Gly Cys Ala Cys Ala Gly Ala Cys
 565 570 575
 Ala Cys Gly Thr Cys Ala Cys Thr Cys Thr Ala Thr Gly Ala Gly Ala
 580 585 590
 Cys Cys Cys Thr Gly Ala Thr Gly Thr Ala Thr Gly Cys Cys Thr Gly
 595 600 605
 Cys Thr Gly Cys Gly Thr Gly Cys Thr Gly Ala Thr Gly Cys Thr Gly
 610 615 620
 Cys Thr Thr Ala Thr Cys Cys Cys Thr Cys Thr Ala Thr Cys Thr Gly
 625 630 635 640
 Thr Cys Ala Thr Cys Thr Cys Thr Gly Thr Cys Thr Cys Cys Thr Ala
 645 650 655
 Cys Ala Cys Gly Cys Ala Cys Ala Thr Cys Cys Thr Cys Cys Thr Gly
 660 665 670
 Ala Cys Thr Gly Thr Cys Cys Ala Cys Ala Gly Gly Ala Thr Gly Ala
 675 680 685
 Ala Cys Thr Cys Thr Gly Cys Thr Gly Ala Gly Gly Gly Cys Cys Gly
 690 695 700
 Gly Cys Gly Cys Ala Ala Gly Cys Cys Thr Thr Thr Gly Cys Thr
 705 710 715 720
 Ala Cys Gly Thr Gly Thr Thr Cys Cys Thr Cys Cys Cys Ala Cys Ala
 725 730 735
 Thr Thr Ala Thr Gly Gly Thr Gly Gly Thr Gly Ala Gly Cys Gly Thr
 740 745 750
 Thr Thr Thr Cys Thr Ala Cys Gly Gly Gly Gly Cys Ala Gly Cys Cys
 755 760 765
 Thr Thr Cys Thr Ala Cys Ala Cys Cys Ala Ala Cys Gly Thr Gly Cys
 770 775 780
 Thr Gly Cys Cys Cys Cys Ala Cys Thr Cys Cys Thr Ala Cys Cys Ala
 785 790 795 800
 Cys Ala Cys Thr Cys Cys Ala Gly Ala Gly Ala Ala Ala Gly Ala Thr
 805 810 815
 Ala Ala Ala Gly Thr Gly Gly Thr Gly Thr Cys Thr Gly Cys Cys Thr
 820 825 830

Thr Cys Thr Ala Cys Ala Cys Cys Ala Thr Cys Cys Thr Cys Ala Cys
 835 840 845
 Cys Cys Cys Cys Ala Thr Gly Cys Thr Cys Ala Ala Cys Cys Cys Ala
 850 855 860
 Cys Thr Cys Ala Thr Cys Thr Ala Cys Ala Gly Cys Thr Thr Gly Ala
 865 870 875 880
 Gly Gly Ala Ala Thr Ala Ala Ala Gly Ala Thr Gly Thr Gly Gly Cys
 885 890 895
 Thr Gly Cys Ala Gly Cys Thr Cys Thr Gly Ala Gly Gly Ala Ala Ala
 900 905 910
 Gly Thr Ala Cys Thr Ala Gly Gly Gly Ala Gly Ala Thr Gly Thr Gly
 915 920 925
 Gly Thr Thr Cys Cys Thr Cys Cys Cys Ala Gly Ala Gly Cys Ala Thr
 930 935 940
 Cys Ala Gly Gly Gly Thr Gly Gly Cys Gly Ala Cys Thr Gly Thr Gly
 945 950 955 960
 Ala Thr Cys Ala Gly Gly Ala Ala Gly Gly Gly Cys Thr Ala Gly
 965 970 975

<210> 432
 <211> 915
 <212> DNA
 <213> Homo sapiens

<400> 432
 atggaaagag caaaccattc agtgggtatcg gaattttattt tgttgggact ttccaaatct 60
 caaaatcttc agatttttatt cttcttggga ttctctgtgg tcttcgtggg gattgtgtta 120
 ggaaacctgc tcatcttggg gactgtgacc tttgattcgc tccttcacac accaatgtat 180
 tttctgctta gcaacctctc ctgcattgat atgatcctgg cttcttttgc taccctaag 240
 atgattgtag atttcctcgc agaacgtaag accatctcat ggtggggatg ttattcccag 300
 atgttcttta tgcacctcct ggggtgggagt gagatgatgt tgcttgtagc catggcaata 360
 gacaggtatg ttgccatatg caaaccctc cattacatga ccatcatgag ccacggggtg 420
 ctcaactggc tactgttatc ctccatgca gttggatttg tgcactcatc tagtcaaatg 480
 gctttcatgt tgactttgcc cttctgtggt cccaatgtta tagacagctt tttctgtgac 540
 cttccccctg tgattaaact tgccctgcaag gacacctaca tcctacagct cctgggtcatt 600
 gctgacagtg ggctcctgtc actggtctgc ttcctcctct tgcttgtctc ctatggagtc 660
 ataataattc cagttaggtta ccgtgctgct agtcgatcct ctaaggcttt ctccactctc 720
 tcagctcaca tcacagttgt gactctgttc tttgctccgt gtgtctttat ctacgtctgg 780
 cccttcagca gatactcggt agataaaatt ctttctgtgt tttacacaat tttcacacct 840
 ctcttaaadc ctattattta tacattaaga aatcaagagg taaaagcagc cattaaaaaa 900
 agactctgca tataa 915

<210> 433
 <211> 348
 <212> PRT
 <213> Homo sapiens

<400> 433

Met	Asp	Asn	Ile	Thr	Trp	Met	Ala	Ser	His	Thr	Gly	Trp	Ser	Asp	Phe
1				5					10					15	
Ile	Leu	Met	Gly	Leu	Phe	Arg	Gln	Ser	Lys	His	Pro	Met	Ala	Asn	Ile
			20					25					30		
Thr	Trp	Met	Ala	Asn	His	Thr	Gly	Trp	Ser	Asp	Phe	Ile	Leu	Leu	Gly
		35					40					45			
Leu	Phe	Arg	Gln	Ser	Lys	His	Pro	Ala	Leu	Leu	Cys	Val	Val	Ile	Phe
	50					55					60				
Val	Val	Phe	Leu	Met	Ala	Leu	Ser	Gly	Asn	Ala	Val	Leu	Ile	Leu	Leu
65					70					75					80
Ile	His	Cys	Asp	Ala	His	Leu	His	Thr	Pro	Met	Tyr	Phe	Phe	Ile	Ser
				85					90					95	
Gln	Leu	Ser	Leu	Met	Asp	Met	Ala	Tyr	Ile	Ser	Val	Thr	Val	Pro	Lys
			100					105					110		
Met	Leu	Leu	Asp	Gln	Val	Met	Gly	Val	Asn	Lys	Ile	Ser	Ala	Pro	Glu
		115					120					125			
Cys	Gly	Met	Gln	Met	Phe	Phe	Tyr	Val	Thr	Leu	Ala	Gly	Ser	Glu	Phe
	130					135					140				
Phe	Leu	Leu	Ala	Thr	Met	Ala	Tyr	Asp	Arg	Tyr	Val	Ala	Ile	Cys	His
145					150					155					160
Pro	Leu	Arg	Tyr	Pro	Val	Leu	Met	Asn	His	Arg	Val	Cys	Leu	Phe	Leu
				165					170					175	
Ser	Ser	Gly	Cys	Trp	Phe	Leu	Gly	Ser	Val	Asp	Gly	Phe	Thr	Phe	Thr
			180					185					190		
Pro	Ile	Thr	Met	Thr	Phe	Pro	Phe	Arg	Gly	Ser	Arg	Glu	Ile	His	His
		195					200					205			
Phe	Phe	Cys	Glu	Val	Pro	Ala	Val	Leu	Asn	Leu	Ser	Cys	Ser	Asp	Thr
	210					215					220				
Ser	Leu	Tyr	Glu	Ile	Phe	Met	Tyr	Leu	Cys	Cys	Val	Leu	Met	Leu	Leu
225					230					235					240
Ile	Pro	Val	Val	Ile	Ile	Ser	Ser	Ser	Tyr	Leu	Leu	Ile	Leu	Leu	Thr
				245					250					255	
Ile	His	Gly	Met	Asn	Ser	Ala	Glu	Gly	Arg	Lys	Lys	Ala	Phe	Ala	Thr
			260					265					270		
Cys	Ser	Ser	His	Leu	Thr	Val	Val	Ile	Leu	Phe	Tyr	Gly	Ala	Ala	Ile
		275					280					285			
Tyr	Thr	Tyr	Met	Leu	Pro	Ser	Ser	Tyr	His	Thr	Pro	Glu	Lys	Asp	Met

290 295 300

Met Val Ser Val Phe Tyr Thr Ile Leu Thr Pro Val Val Asn Pro Leu
 305 310 315 320

Ile Tyr Ser Leu Arg Asn Lys Asp Val Met Gly Ala Leu Lys Lys Met
 325 330 335

Leu Thr Val Glu Pro Ala Phe Gln Lys Ala Met Glu
 340 345

<210> 434
 <211> 1047
 <212> DNA
 <213> Homo sapiens

<400> 434

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tggtcggatt	tcatacctgtt	gggactcttc	agacaatcca	aacatccagc	actactttgt	180
gtggtcattt	ttgtggtttt	cctgatggcg	ttgtctggaa	atgctgtcct	gataccttctg	240
atacactgtg	acgcccacct	ccacaccccc	atgtactttt	tcatacagtc	attgtctctc	300
atggacatgg	cgtacatttc	tgtcactgtg	cccaagatgc	tcctggacca	ggatcatgggt	360
gtgaataaga	tctcagcccc	tgagtgtggg	atgcagatgt	tcttctacgt	gacactagca	420
ggttcagaat	ttttccttct	agccaccatg	gcctatgacc	gctacgtggc	catctgccat	480
cctctccgtt	accctgtcct	catgaaccat	aggggtgtgtc	tcttcctgtc	atcaggctgc	540
tggttcctgg	gctcagtgga	tggtttcaca	ttcactccca	tcaccatgac	cttcccccttc	600
cgtggatccc	gggagattca	tcattttctc	tgtgaagttc	ctgctgtatt	gaatctctcc	660
tgctcagaca	cctcactcta	tgagattttc	atgtacttgt	gctgtgtcct	catgctctc	720
atccctgtgg	tgatcatttc	aagctcctat	ttactcatcc	tcctcaccat	ccacgggatg	780
aactcagcag	agggccggaa	aaaggccttt	gccacctgct	cctcccacct	gactgtgggc	840
atcctcttct	atggggctgc	catctacacc	tacatgctcc	ccagctccta	ccacaccctc	900
gagaaggaca	tgatgggtatc	tgtcttctat	accatcctca	ctccagtggg	gaacccttta	960
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cctgcctttc	aaaaagctat	ggagtag				1047

<210> 435
 <211> 315
 <212> PRT
 <213> Homo sapiens

<400> 435

Met	Ala	Asn	Ile	Thr	Arg	Met	Ala	Asn	His	Thr	Gly	Lys	Leu	Asp	Phe
1					5				10					15	
Ile	Leu	Met	Gly	Leu	Phe	Arg	Arg	Ser	Lys	His	Pro	Ala	Leu	Leu	Ser
		20						25					30		
Val	Val	Ile	Phe	Val	Val	Phe	Leu	Lys	Ala	Leu	Ser	Gly	Asn	Ala	Val
		35					40					45			
Leu	Ile	Leu	Leu	Ile	His	Cys	Asp	Ala	His	Leu	His	Ser	Pro	Met	Tyr
	50					55				60					
Phe	Phe	Ile	Ser	Gln	Leu	Ser	Leu	Met	Asp	Met	Ala	Tyr	Ile	Ser	Val

65		70		75		80
Thr Val Pro Lys Met Leu Leu Asp Gln Val Met Gly Val Asn Lys Val						
	85			90		95
Ser Ala Pro Glu Cys Gly Met Gln Met Phe Leu Tyr Leu Thr Leu Ala						
	100			105		110
Gly Ser Glu Phe Phe Leu Leu Ala Thr Met Ala Tyr Asp Arg Tyr Val						
	115			120		125
Ala Ile Cys His Pro Leu Arg Tyr Pro Val Leu Met Asn His Arg Val						
	130			135		140
Cys Leu Phe Leu Ala Ser Gly Cys Trp Phe Leu Gly Ser Val Asp Gly						
	145			150		155
Phe Met Leu Thr Pro Ile Thr Met Ser Phe Pro Phe Cys Arg Ser Trp						
	165			170		175
Glu Ile His His Phe Phe Cys Glu Val Pro Ala Val Thr Ile Leu Ser						
	180			185		190
Cys Ser Asp Thr Ser Leu Tyr Glu Thr Leu Met Tyr Leu Cys Cys Val						
	195			200		205
Leu Met Leu Leu Ile Pro Val Thr Ile Ile Ser Ser Ser Tyr Leu Leu						
	210			215		220
Ile Leu Leu Thr Val His Arg Met Asn Ser Ala Glu Gly Arg Lys Lys						
	225			230		235
Ala Phe Ala Thr Cys Ser Ser His Leu Thr Val Val Ile Leu Phe Tyr						
	245			250		255
Gly Ala Ala Val Tyr Thr Tyr Met Leu Pro Ser Ser Tyr His Thr Pro						
	260			265		270
Glu Lys Asp Met Met Val Ser Val Phe Tyr Thr Ile Leu Thr Pro Val						
	275			280		285
Leu Asn Pro Leu Ile Tyr Ser Leu Arg Asn Lys Asp Val Met Gly Ala						
	290			295		300
Leu Lys Lys Met Leu Thr Val Arg Phe Val Leu						
	305			310		315

<210> 436

<211> 948

<212> DNA

<213> Homo sapiens

<400> 436

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aaggcggtgt ctggaaatgc tgtcctgata cttctgatac actgtgacgc ccacctccac 180

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agcccatgt actttttcat cagtcaattg tctctcatgg acatggcgta catttctgtc 240
actgtgcccc agatgtctct ggaccagggt atgggtgtga ataaggctct agccctgag 300
tgtgggatgc agatgttcct ctatctgaca ctacgagggt cggaattttt ccttctagcc 360
accatggcct atgaccgcta cgtggccatc tgccatcctc tccgttacct tgcctcatg 420
aaccataggg tctgtctttt cctggcatcg ggctgctggg tcctgggctc agtggatggc 480
ttcatgctca ctcccatcac catgagcttc ccttctgca gatcctggga gattcatcat 540
ttcttctgtg aagtccctgc tgtaacgata ctgtcctgct cagacacctc actctatgag 600
accctcatgt acctatgctg tgctctcatg ctctcatccc ctgtgacgat catttcaagc 660
tcctatttac tcatcctcct caccgtccac aggatgaact cagcagaggg ccggaaaaag 720
gcctttgcca cctgctcctc ccacctgact gtggtcatcc tcttctatgg ggctgccgtc 780
tacacctaca tgctccccag ctctaccac acccctgaga aggacatgat ggtatctgtc 840
ttctatacca tcctcactcc ggtgctgaac cctttaatct atagtcttag gaataaggat 900
gtcatggggg ctctgaagaa aatgttaact gtgagattcg tcctttag 948

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<210> 437

<211> 312

<212> PRT

<213> Homo sapiens

<400> 437

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Met Pro Asn Ser Thr Thr Val Met Glu Phe Leu Leu Met Arg Phe Ser
  1                      5                      10                      15

Asp Val Trp Thr Leu Gln Ile Leu His Ser Ala Ser Phe Phe Met Leu
      20                      25                      30

Tyr Leu Val Thr Leu Met Gly Asn Ile Leu Ile Val Thr Val Thr Thr
      35                      40                      45

Cys Asp Ser Ser Leu His Met Pro Met Tyr Phe Phe Leu Arg Asn Leu
      50                      55                      60

Ser Ile Leu Asp Ala Cys Tyr Ile Ser Val Thr Val Pro Thr Ser Cys
      65                      70                      75                      80

Val Asn Ser Leu Leu Asp Ser Thr Thr Ile Ser Lys Ala Gly Cys Val
      85                      90                      95

Ala Gln Val Phe Leu Val Val Phe Phe Val Tyr Val Glu Leu Leu Phe
      100                      105                      110

Leu Thr Ile Met Ala His Asp Arg Tyr Val Ala Val Cys Gln Pro Leu
      115                      120                      125

His Tyr Pro Val Ile Val Asn Ser Arg Ile Cys Ile Gln Met Thr Leu
      130                      135                      140

Ala Ser Leu Leu Ser Gly Leu Val Tyr Ala Gly Met His Thr Gly Ser
      145                      150                      155                      160

Thr Phe Gln Leu Pro Phe Cys Arg Ser Asn Val Ile His Gln Phe Phe
      165                      170                      175

Cys Asp Ile Pro Ser Leu Leu Lys Leu Ser Cys Ser Asp Thr Phe Ser
      180                      185                      190

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Asn Glu Val Met Ile Val Val Ser Ala Leu Gly Val Gly Gly Gly Cys
 195 200 205
 Phe Ile Phe Ile Ile Arg Ser Tyr Ile His Ile Phe Ser Thr Val Leu
 210 215 220
 Gly Phe Pro Arg Gly Ala Asp Arg Thr Lys Ala Phe Ser Thr Cys Ile
 225 230 235 240
 Pro His Ile Leu Val Val Ser Val Phe Leu Ser Ser Cys Ser Ser Val
 245 250 255
 Tyr Leu Arg Pro Pro Ala Ile Pro Ala Ala Thr Gln Asp Leu Ile Leu
 260 265 270
 Ser Gly Phe Tyr Ser Ile Met Pro Pro Leu Phe Asn Pro Ile Ile Tyr
 275 280 285
 Ser Leu Arg Asn Lys Gln Ile Lys Val Ala Ile Lys Lys Ile Met Lys
 290 295 300
 Arg Ile Phe Tyr Ser Glu Asn Val
 305 310

<210> 438
 <211> 939
 <212> DNA
 <213> Homo sapiens

<400> 438
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 ctacagattt tacattctgc atccttcttt atgttgattt tggttaactct aatgggaaac 120
 atcctcattg tgaccgtcac caccgtgtgac agcagccttc acatgcccat gtacttcttc 180
 ctccaggaatc tgtctatctt ggatgcctgc tacatttctg ttacagtccc tacctcatgt 240
 gtcaattccc tactggacag caccaccatt tctaaggcgg gatgtgtagc tcaggtcttc 300
 ctccgtgggtt tttttgtata tgtggagctt ctgtttctca ccattatggc tcatgaccgc 360
 tatgtggctg tctgccagcc acttcactac cctgtgatcg tgaactctcg aatctgcac 420
 cagatgacac tggcctccct actcagtggt cttgtctatg caggcatgca cactggcagc 480
 acattccagc tggccttctg tccgtccaac gttattcatc aattcttctg tgacatcccc 540
 tctctgctga agctctcttg ctctgacacc ttcagcaatg aggtcatgat tgttgtctct 600
 gctctggggg taggtggcgg ctgtttcatc tttatcatca ggtcttacat tcacatcttt 660
 tcgaccgtgc tcgggtttcc aagaggagca gacagaacaa aggccttttc cactgcac 720
 cctcacatcc tgggtgggtg agtcttctc agttcatgct cttctgtgta cctcaggcca 780
 cctgcgatac ctgcagccac ccaggatctg atccttctct gtttttattc cataatgcct 840
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 aaaatcatga agagaatttt ttattcagaa aatgtgtaa 939

<210> 439
 <211> 312
 <212> PRT
 <213> Homo sapiens

<400> 439
 Met Asp Gly Val Asn Asp Ser Ser Leu Gln Gly Phe Val Leu Met Gly
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Ile Ser Asp His Pro Gln Leu Glu Met Ile Phe Phe Ile Ala Ile Leu
 20 25 30
 Phe Ser Tyr Leu Leu Thr Leu Leu Gly Asn Ser Thr Ile Ile Leu Leu
 35 40 45
 Ser Arg Leu Glu Ala Arg Leu His Thr Pro Met Tyr Phe Phe Leu Ser
 50 55 60
 Asn Leu Ser Ser Leu Asp Leu Ala Phe Ala Thr Ser Ser Val Pro Gln
 65 70 75 80
 Met Leu Ile Asn Leu Trp Gly Pro Gly Lys Thr Ile Ser Tyr Gly Gly
 85 90 95
 Cys Ile Thr Gln Leu Tyr Val Phe Leu Trp Leu Gly Ala Thr Glu Cys
 100 105 110
 Ile Leu Leu Val Val Met Ala Phe Asp Arg Tyr Val Ala Val Cys Arg
 115 120 125
 Pro Leu Arg Tyr Thr Ala Ile Met Asn Pro Gln Leu Cys Trp Leu Leu
 130 135 140
 Ala Val Ile Ala Cys Leu Gly Gly Leu Gly Asn Ser Val Ile Gln Ser
 145 150 155 160
 Thr Phe Thr Leu Gln Leu Pro Leu Cys Gly His Arg Arg Val Glu Gly
 165 170 175
 Phe Leu Cys Glu Val Pro Ala Met Ile Lys Leu Ala Cys Gly Asp Thr
 180 185 190
 Ser Leu Asn Gln Ala Val Leu Asn Gly Val Cys Thr Phe Phe Thr Ala
 195 200 205
 Val Pro Leu Ser Ile Ile Val Ile Ser Tyr Cys Leu Ile Ala Gln Ala
 210 215 220
 Val Leu Lys Ile Arg Ser Ala Glu Gly Arg Arg Lys Ala Phe Asn Thr
 225 230 235 240
 Cys Leu Ser His Leu Leu Val Val Phe Leu Phe Tyr Gly Ser Ala Ser
 245 250 255
 Tyr Gly Tyr Leu Leu Pro Ala Lys Asn Ser Lys Gln Asp Gln Gly Lys
 260 265 270
 Phe Ile Ser Leu Phe Tyr Ser Leu Val Thr Pro Met Val Asn Pro Leu
 275 280 285
 Ile Tyr Thr Leu Arg Asn Met Glu Val Lys Gly Ala Leu Arg Arg Leu
 290 295 300
 Leu Gly Lys Gly Arg Glu Val Gly
 305 310

<210> 440
 <211> 939
 <212> DNA
 <213> Homo sapiens

<400> 440
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 cccagctgg agatgatctt ttttatagcc atcctcttct cctatttgct gaccctactt 120
 gggaactcaa ccatcatctt gctttcccg cttggaggccc ggctccatac acccatgtac 180
 ttcttctca gcaacctctc ctccctggac cttgctttcg ctactagttc agtcccccaa 240
 atgctgatca atttatgggg accaggcaag accatcagct atgggtggctg cataaccag 300
 ctctatgtct tcctttgggt gggggccacc gagtgcaccc tgctgggtgg gatggcattt 360
 gaccgctacg tggcagtgtg ccggccctc cgctacaccg ccatcatgaa ccccgagctc 420
 tgctgggtgc tggctgtgat tgcctgcctg ggtggcttgg gcaactctgt gatccagtca 480
 acattcactc tgcagctccc attgtgtggg caccggaggg tggagggatt cctctgcgag 540
 gtgcctgcca tgatcaaact ggctgtggc gacacaagtc tcaaccaggc tgtgtcaat 600
 ggtgtctgca ccttcttcac tgcagtccca ctaagcatca tcgtgatctc ctactgcctc 660
 attgctcagg cagtgtgaa aatccgctct gcagagggga ggcgaaaggc gttcaatacg 720
 tgctctccc atctgctggg ggtgttctc ttctatggct cagccagcta tgggtatctg 780
 cttccggcca agaacagcaa acaggaccag ggcaagttca tttccctgtt ctactcgttg 840
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 ctgaggaggt tgctggggaa aggaagagaa gttggctga 939

<210> 441
 <211> 352
 <212> PRT
 <213> Homo sapiens

<400> 441
 Met Thr Ser Gln Glu Arg Asp Thr Ala Ile Tyr Ser Ile Asn Val Ser
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 Phe Val Ala Lys Gly Met Thr Ser Arg Ser Val Cys Glu Lys Met Thr
 20 25 30
 Met Thr Thr Glu Asn Pro Asn Gln Thr Val Val Ser His Phe Phe Leu
 35 40 45
 Glu Gly Leu Arg Tyr Thr Ala Lys His Ser Ser Leu Phe Phe Leu Leu
 50 55 60
 Phe Leu Leu Ile Tyr Ser Ile Thr Val Ala Gly Asn Leu Leu Ile Leu
 65 70 75 80
 Leu Thr Val Gly Ser Asp Ser His Leu Ser Leu Pro Met Tyr His Phe
 85 90 95
 Leu Gly His Leu Ser Phe Leu Asp Ala Cys Leu Ser Thr Val Thr Val
 100 105 110
 Pro Lys Val Met Ala Gly Leu Leu Thr Leu Asp Gly Lys Val Ile Ser
 115 120 125
 Phe Glu Gly Cys Ala Val Gln Leu Tyr Cys Phe His Phe Leu Ala Ser

130	135	140
Thr Glu Cys Phe Leu Tyr Thr Val Met Ala Tyr Asp Arg Tyr Leu Ala 145 150 155 160		
Ile Cys Gln Pro Leu His Tyr Pro Val Ala Met Asn Arg Arg Met Cys 165 170 175		
Ala Glu Met Ala Gly Ile Thr Trp Ala Ile Gly Ala Thr His Ala Ala 180 185 190		
Ile His Thr Ser Leu Thr Phe Arg Leu Leu Tyr Cys Gly Pro Cys His 195 200 205		
Ile Ala Tyr Phe Phe Cys Asp Ile Pro Pro Val Leu Lys Leu Ala Cys 210 215 220		
Thr Asp Thr Thr Ile Asn Glu Leu Val Met Leu Ala Ser Ile Gly Ile 225 230 235 240		
Val Ala Ala Gly Cys Leu Ile Leu Ile Val Ile Ser Tyr Ile Phe Ile 245 250 255		
Val Ala Ala Val Leu Arg Ile Arg Thr Ala Gln Gly Arg Gln Arg Ala 260 265 270		
Phe Ser Pro Cys Thr Ala Gln Leu Thr Gly Val Leu Leu Tyr Tyr Val 275 280 285		
Pro Pro Val Cys Ile Tyr Leu Gln Pro Arg Ser Ser Glu Ala Gly Ala 290 295 300		
Gly Ala Pro Ala Val Phe Tyr Thr Ile Val Thr Pro Met Leu Asn Pro 305 310 315 320		
Phe Ile Tyr Thr Leu Arg Asn Lys Glu Val Lys His Ala Leu Gln Arg 325 330 335		
Leu Leu Cys Ser Ser Phe Arg Glu Ser Thr Ala Gly Ser Pro Pro Pro 340 345 350		

<210> 442

<211> 1059

<212> DNA

<213> Homo sapiens

<400> 442

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actgtgggtga gccacttctt cctggagggt ttgaggtaca ccgctaaaca ttctagcctc 180
ttcttcctcc tcttctcct catctacagc atcactgtgg ctgggaatct cctcatcctc 240
ctaactgtgg gctctgactc tcacctcagc ttacccatgt accattcct ggggcacctc 300
tccttctctg atgcctgttt gtctacagtg acagtgccca aggtcatggc aggccctgctg 360

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actctgggatg ggaaggtgat ctccctttgag ggctgtgccc tacagcttta ttgcttccac 420
tttctggcca gcactgagtg cttcctgtac acagtcatgg cctatgaccg ctatctggct 480
atctgtcaac ccctgcacta cccagtggcc atgaacagaa ggatgtgtgc agaaatggct 540
ggaatcacct gggccatagg tgccacgcac gctgcaatcc acacctccct caccttccgc 600
ctgctctact gtgggccttg ccacattgcc tacttcttct gcgacatacc ccctgtccta 660
aagctcgcct gtacagacac caccattaat gagctagtca tgcttgccag cattggcatc 720
gtggctgcag gctgcctcat cctcatcggt atttcctaca tcttcatcgt ggcagctgtg 780
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gaggcaggag ctggggcccc tgctgtcttc tacacaatcg taactccaat gctcaacca 960
ttcatttaca ctttgcgga caaggaggtg aagcatgctc tgcaaaggct tttgtgcagc 1020
agcttccgag agtctacagc aggcagccca ccccatag 1059

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<210> 443

<211> 314

<212> PRT

<213> Homo sapiens

<400> 443

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Met Asp Gln Arg Asn Tyr Thr Arg Val Lys Glu Phe Thr Phe Leu Gly
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Ile Thr Gln Ser Arg Glu Leu Ser Gln Val Leu Phe Thr Phe Leu Phe
      20              25              30

Leu Val Tyr Met Thr Thr Leu Met Gly Asn Phe Leu Ile Met Val Thr
      35              40              45

Val Thr Cys Glu Ser His Leu His Thr Pro Met Tyr Phe Leu Leu Arg
      50              55              60

Asn Leu Ser Ile Leu Asp Ile Cys Phe Ser Ser Ile Thr Ala Pro Lys
      65              70              75              80

Val Leu Ile Asp Leu Leu Ser Glu Thr Lys Thr Ile Ser Phe Ser Gly
      85              90              95

Cys Val Thr Gln Met Phe Phe Phe His Leu Leu Gly Gly Ala Asp Val
      100              105              110

Phe Ser Leu Ser Val Met Ala Phe Asp Arg Tyr Ile Ala Ile Ser Lys
      115              120              125

Pro Leu His Tyr Met Thr Ile Met Ser Arg Gly Arg Cys Thr Gly Leu
      130              135              140

Ile Val Gly Phe Leu Gly Gly Gly Leu Val His Ser Ile Ala Gln Ile
      145              150              155              160

Ser Leu Leu Leu Pro Leu Pro Val Cys Gly Pro Asn Val Leu Asp Thr
      165              170              175

Phe Tyr Cys Asp Val Pro Gln Val Leu Lys Leu Ala Cys Thr Asp Thr
      180              185              190

Phe Thr Leu Glu Leu Leu Met Ile Ser Asn Asn Gly Leu Val Ser Trp

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195. 200 205

Phe Val Phe Phe Phe Leu Leu Ile Ser Tyr Thr Val Ile Leu Met Met
210 215 220

Leu Arg Ser His Thr Gly Glu Gly Arg Arg Lys Ala Ile Ser Thr Cys
225 230 235 240

Thr Ser His Ile Thr Val Val Thr Leu His Phe Val Pro Cys Ile Tyr
245 250 255

Val Tyr Ala Arg Pro Phe Thr Ala Leu Pro Thr Asp Thr Ala Ile Ser
260 265 270

Val Thr Phe Thr Val Ile Ser Pro Leu Leu Asn Pro Ile Ile Tyr Thr
275 280 285

Leu Arg Asn Gln Glu Met Lys Leu Ala Met Arg Lys Leu Lys Arg Arg
290 295 300

Leu Gly Gln Ser Glu Arg Ile Leu Ile Gln
305 310

<210> 444
<211> 945
<212> DNA
<213> Homo sapiens

<400> 444

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cgagaactga	gccaggtctt	atttaccttc	ctgttttttg	tgtacatgac	aactctaata	120
ggaaacttcc	tcatcatggt	tacagttacc	tgtgaatctc	accttcatac	gccccatgtac	180
ttcctgctcc	gcaacctgtc	tattcttgac	atctgctttt	cctccatcac	agctcctaag	240
gtcctgatag	atcttctatc	agagacaaaa	accatctcct	tcagtggctg	tgtcactcaa	300
atgttcttct	tccaccttct	ggggggagca	gacgtttttt	ctctctctgt	gatggcggtt	360
gaccgctata	tagccatctc	caagccccctg	cactatatga	ccatcatgag	tagggggcga	420
tgcacaggcc	tcacgtggg	cttctctggg	ggggggcctg	tccactccat	agcgcagatt	480
tctctattgc	tcccactccc	tgtctgtgga	cccaatgttc	ttgacacttt	ctactgcgat	540
gtcccccagg	tcctcaaact	tgcttgcaact	gacaccttca	ctctggagct	cctgatgatt	600
tcaaataatg	ggttagtcag	ttggtttgta	ttcttctttc	tcctcatatc	ttacacggtc	660
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acctcccaca	tcaccgtgg	gaccctgcat	ttcgtgccct	gcatttatgt	ctatgcccgg	780
cccttcaactg	ccctccccac	agacactgcc	atctctgtca	ccttcaactgt	catctcccct	840
ttgctcaatc	ctataattta	cacgctgagg	aatcaggaaa	tgaagttggc	catgaggaaa	900
ctgaagagac	ggctaggaca	atcagaaagg	attttaattc	aataa		945

<210> 445
<211> 315
<212> PRT
<213> Homo sapiens

<400> 445

Met	Ala	Pro	Glu	Asn	Phe	Thr	Arg	Val	Thr	Glu	Phe	Ile	Leu	Thr	Gly
1					5				10				15		

Val	Ser	Ser	Cys	Pro	Glu	Leu	Gln	Ile	Pro	Leu	Phe	Leu	Val	Phe	Leu		
			20					25					30				
Val	Leu	Tyr	Val	Leu	Thr	Met	Ala	Gly	Asn	Leu	Gly	Ile	Ile	Thr	Leu		
		35					40					45					
Thr	Ser	Val	Asp	Ser	Arg	Leu	Gln	Thr	Pro	Met	Tyr	Phe	Phe	Leu	Arg		
	50					55					60						
His	Leu	Ala	Ile	Ile	Asn	Leu	Gly	Asn	Ser	Thr	Val	Ile	Ala	Pro	Lys		
	65				70					75					80		
Met	Leu	Met	Asn	Phe	Leu	Val	Lys	Lys	Lys	Thr	Thr	Ser	Phe	Tyr	Glu		
				85					90					95			
Cys	Ala	Thr	Gln	Leu	Gly	Gly	Phe	Leu	Phe	Phe	Ile	Val	Ser	Glu	Val		
			100					105					110				
Met	Met	Leu	Ala	Val	Met	Ala	Tyr	Asp	Arg	Tyr	Val	Ala	Ile	Cys	Asn		
		115					120					125					
Pro	Leu	Leu	Tyr	Met	Val	Val	Val	Ser	Arg	Arg	Leu	Cys	Leu	Leu	Leu		
	130					135					140						
Val	Ser	Leu	Thr	Tyr	Leu	Tyr	Gly	Phe	Ser	Thr	Ala	Ile	Val	Val	Ser		
145					150					155					160		
Pro	Cys	Ile	Phe	Ser	Val	Ser	Tyr	Cys	Ser	Ser	Asn	Ile	Ile	Asn	His		
			165					170						175			
Phe	Tyr	Cys	Asp	Ile	Ala	Pro	Leu	Leu	Ala	Leu	Ser	Cys	Ser	Asp	Thr		
			180					185					190				
Tyr	Ile	Pro	Glu	Thr	Ile	Val	Phe	Ile	Ser	Ala	Ala	Thr	Asn	Leu	Phe		
	195						200					205					
Phe	Ser	Met	Ile	Thr	Val	Leu	Val	Ser	Tyr	Phe	Asn	Ile	Val	Leu	Ser		
	210					215					220						
Ile	Leu	Arg	Ile	Arg	Ser	Pro	Glu	Gly	Arg	Lys	Lys	Ala	Phe	Ser	Thr		
225					230					235					240		
Cys	Ala	Ser	His	Met	Ile	Ala	Val	Thr	Val	Phe	Tyr	Gly	Thr	Met	Leu		
			245						250					255			
Phe	Met	Tyr	Leu	Gln	Pro	Gln	Thr	Asn	His	Ser	Leu	Asp	Thr	Asp	Lys		
		260						265					270				
Met	Ala	Ser	Val	Phe	Tyr	Thr	Leu	Val	Ile	Pro	Met	Leu	Asn	Pro	Leu		
		275					280					285					
Ile	Tyr	Ser	Leu	Arg	Asn	Asn	Asp	Val	Asn	Val	Ala	Leu	Lys	Lys	Phe		
	290					295					300						
Met	Glu	Asn	Pro	Cys	Tyr	Ser	Phe	Lys	Ser	Met							
305					310					315							

<210> 446
 <211> 948
 <212> DNA
 <213> Homo sapiens

<400> 446
 atggctcctg aaaatttcac caggggcact gagtttattc tcacaggtgt ctctagctgt 60
 ccagagctcc agattcccct cttoctgggc ttcctagtgc tctatgtgct gaccatggca 120
 gggaacctgg gcatcatcac cctcaccagt gttgactctc gacttcaaac ccccatgtac 180
 tttttcctga gacatctagc tatcatcaat cttggcaact ctactgtcat tgcccctaaa 240
 atgctgatga acttttttagt aaagaagaaa actacctcat tctatgaatg tgccacccaa 300
 ctgggagggg tcttggttctt tattgtatcg gaggtaatga tgctggctgt gatggcctat 360
 gaccgctatg tggccatttg taaccctctg ctctacatgg tgggtgggtgc tcggcggtgc 420
 tgcctcctgc tgggtgtccct cacgtacctc tatggctttt ctacagctat tgtgggtttca 480
 ccttgatat tctctgtgtc ttattgctct tctaataataa tcaatcattt ttactgtgat 540
 attgcacctc tgtttagcatt atcttgctct gatacttaca taccagaaac aatagtcttt 600
 atatctgcag caacaaattt gtttttttcc atgattacag ttctagtatc ttattttcaat 660
 attgttttgt ccattctaag gatacgttca ccagaaggaa ggaaaaaagc cttttccacc 720
 tgcgcttcgc atatgatagc agtcacgggt ttctatggga caatgctatt tatgtatttg 780
 cagcccaaaa ccaaccactc actggatact gataagatgg cttctgtgtt ttacacattg 840
 gtgattccta tgctgaatcc cttgatctac agcctgagga ataatgatgt aaatgttgcc 900
 ttaaagaaat tcatggaaaa tccatgttac tccttttaaat caatgtaa 948

<210> 447
 <211> 310
 <212> PRT
 <213> Homo sapiens

<400> 447
 Met Asp Pro Gln Asn Tyr Ser Leu Val Ser Glu Phe Val Leu His Gly
 1 5 10 15
 Leu Cys Thr Ser Arg His Leu Gln Asn Phe Phe Phe Ile Phe Phe Phe
 20 25 30
 Gly Val Tyr Val Ala Ile Met Leu Gly Asn Leu Leu Ile Leu Val Thr
 35 40 45
 Val Ile Ser Asp Pro Cys Leu His Ser Ser Pro Met Tyr Phe Leu Leu
 50 55 60
 Gly Asn Leu Ala Phe Leu Asp Met Trp Leu Ala Ser Phe Ala Thr Pro
 65 70 75 80
 Lys Met Ile Arg Asp Phe Leu Ser Asp Gln Lys Leu Ile Ser Phe Gly
 85 90 95
 Gly Cys Met Ala Gln Ile Phe Phe Leu His Phe Thr Gly Gly Ala Glu
 100 105 110
 Met Val Leu Leu Val Ser Met Ala Tyr Asp Arg Tyr Val Ala Ile Cys
 115 120 125
 Lys Pro Leu His Tyr Met Thr Leu Met Ser Trp Gln Thr Cys Ile Arg
 130 135 140

Leu Val Leu Ala Ser Trp Val Val Gly Phe Val His Ser Ile Ser Gln
 145 150 155 160
 Val Ala Phe Thr Val Asn Leu Pro Tyr Cys Gly Pro Asn Glu Val Asp
 165 170 175
 Ser Phe Phe Cys Asp Leu Pro Leu Val Ile Lys Leu Ala Cys Met Asp
 180 185 190
 Thr Tyr Val Leu Gly Ile Ile Met Ile Ser Asp Ser Gly Leu Leu Ser
 195 200 205
 Leu Ser Cys Phe Leu Leu Leu Leu Ile Ser Tyr Thr Val Ile Leu Leu
 210 215 220
 Ala Ile Arg Gln Arg Ala Ala Gly Ser Thr Ser Lys Ala Leu Ser Thr
 225 230 235 240
 Cys Ser Ala His Ile Met Val Val Thr Leu Phe Phe Gly Pro Cys Ile
 245 250 255
 Phe Val Tyr Val Arg Pro Phe Ser Arg Phe Ser Val Asp Lys Leu Leu
 260 265 270
 Ser Val Phe Tyr Thr Ile Phe Thr Pro Leu Leu Asn Pro Ile Ile Tyr
 275 280 285
 Thr Leu Arg Asn Glu Glu Met Lys Ala Ala Met Lys Lys Leu Gln Asn
 290 295 300
 Arg Arg Val Thr Phe Gln
 305 310

<210> 448
 <211> 933
 <212> DNA
 <213> Homo sapiens

<400> 448
 atggacccac agaactattc cttgggtgtca gaatttgtgt tgcattggact ctgcacttca 60
 cgacatcttc aaaatttttt ctttatattt ttctttgggg tctatgtggc cattatgctg 120
 ggtaaccttc tcatttttgg cactgtaatt tctgatccct gcctgcactc ctcccctatg 180
 tacttcctgc tggggaacct agcttttctg gacatgtggc tggcctcatt tgccactccc 240
 aagatgatca gggatttctt tagtgatcaa aaactcatct ctttggagg atgtatggct 300
 caaatcttct tcttgcactt tactgggtgg gctgagatgg tgctcctggg ttccatggcc 360
 tatgacagat atgtggccat atgcaaacc ttgcattaca tgactttgat gagttggcag 420
 acttgcacat ggctgggtgt ggcttcatgg gtcgttggat ttgtgcactc catcagtcaa 480
 gtggctttca ctgtaaat tgccttactgt ggccccaatg aggtagacag cttcttctgt 540
 gacctccctc tggatgatcaa acttgccctg atggacacct atgtcttggg tataattatg 600
 atctcagaca gtgggttgc ttccttgagc tgttttctgc tctcctgat ctctacacc 660
 gtgatccctc tgcctatcag acagcgtgct gccggtagca catccaaagc actctccact 720
 tgctctgcac atatcatggg agtgacgctg ttctttggcc cttgcatttt tgtttatgtg 780
 cggcctttca gtaggttctc tgtggacaag ctgctgtctg tgttttatac catttttact 840
 ccactcctga accccattat ctacacattg agaatgagg agatgaaagc agctatgaag 900
 aaactgcaaa accgacgggt gacttttcaa tga 933

<210> 449
 <211> 313
 <212> PRT
 <213> Homo sapiens

<400> 449
 Met Ala Gly Glu Asn His Thr Thr Leu Pro Glu Phe Leu Leu Leu Gly
 1 5 10 15
 Phe Ser Asp Leu Lys Ala Leu Gln Gly Pro Leu Phe Trp Val Val Leu
 20 25 30
 Leu Val Tyr Leu Val Thr Leu Leu Gly Asn Ser Leu Ile Ile Leu Leu
 35 40 45
 Thr Gln Val Ser Pro Ala Leu His Ser Pro Met Tyr Phe Phe Leu Arg
 50 55 60
 Gln Leu Ser Val Val Glu Leu Phe Tyr Thr Thr Asp Ile Val Pro Arg
 65 70 75 80
 Thr Leu Ala Asn Leu Gly Ser Pro His Pro Gln Ala Ile Ser Phe Gln
 85 90 95
 Gly Cys Ala Ala Gln Met Tyr Val Phe Ile Val Leu Gly Ile Ser Glu
 100 105 110
 Cys Cys Leu Leu Thr Ala Met Ala Tyr Asp Arg Tyr Val Ala Ile Cys
 115 120 125
 Gln Pro Leu Arg Tyr Ser Thr Leu Leu Ser Pro Arg Ala Cys Leu Ala
 130 135 140
 Met Val Gly Ser Ser Trp Leu Thr Gly Ile Ile Thr Ala Thr Thr His
 145 150 155 160
 Ala Ser Leu Ile Phe Ser Leu Pro Phe Arg Ser His Pro Ile Ile Pro
 165 170 175
 His Phe Leu Cys Asp Ile Leu Pro Val Leu Arg Leu Ala Ser Ala Gly
 180 185 190
 Lys His Arg Ser Glu Ile Ser Val Met Thr Ala Thr Ile Val Phe Ile
 195 200 205
 Met Ile Pro Phe Ser Leu Ile Val Thr Ser Tyr Ile Arg Ile Leu Gly
 210 215 220
 Ala Ile Leu Ala Met Ala Ser Thr Gln Ser Arg Arg Lys Val Phe Ser
 225 230 235 240
 Thr Cys Ser Ser His Leu Leu Val Val Ser Leu Phe Phe Gly Thr Ala
 245 250 255
 Ser Ile Thr Tyr Ile Arg Pro Gln Ala Gly Ser Ser Val Thr Thr Asp

260 265 270
 Arg Val Leu Ser Leu Phe Tyr Thr Val Ile Thr Pro Met Leu Asn Pro
 275 280 285
 Ile Ile Tyr Thr Leu Arg Asn Lys Asp Val Arg Arg Ala Leu Arg His
 290 295 300
 Leu Val Lys Arg Gln Arg Pro Ser Pro
 305 310

<210> 450
 <211> 942
 <212> DNA
 <213> Homo sapiens

<400> 450
 atggctgggg aaaaccatac tacactgcct gaattcctcc ttctgggatt ctctgacctc 60
 aaggccctgc agggccccct gttctgggtg gtgcttctgg tctacctggt caccttgctg 120
 ggtaactccc tgatcatcct cctcacacag gtcagccctg ccctgcactc ccccatgtac 180
 ttcttctctgc gccaaactctc agtgggtggag ctcttctaca ccactgacat cgtgcccagg 240
 accctggcca atctgggctc cccgcacccc caggccatct ctttccaggg ctgtgcagcc 300
 cagatgtacg tcttcattgt cctgggcacg tcggagtgtc gcctgtcac ggccatggcc 360
 tatgaccgat atgttgccat ctgccagccc ctacgctatt ccacctctt gagcccacgg 420
 gcctgcttgg ccatgggtggg gtccctcctgg ctacacaggca tcatcacggc caccacccat 480
 gcctccctca tcttctctct accttttctg agccacccga tcatcccgca ctttctctgt 540
 gacatcctgc cagtactgag gctggcaagt gctgggaagc acaggagcga gatctccgtg 600
 atgacagcca ccatagtctt cattatgac cccttctctc tgattgtcac ctcttacatc 660
 cgcacccctg gtgccatcct agcaatggcc tccacccaga gccgccgcaa ggtcttctcc 720
 acctgctcct cccatctgct cgtgggtctc ctcttctttg gaacagccag catcacctac 780
 atccggccgc aggcaggctc ctctgttacc acagaccgcg tcctcagtct cttctacaca 840
 gtcacacac ccatgtctca ccccatcatc tacacccttc ggaacaagga cgtgaggagg 900
 gccctgcgac acttggtgaa gaggcagcgc ccctcaccct ga 942

<210> 451
 <211> 335
 <212> PRT
 <213> Homo sapiens

<400> 451
 Met Pro Gln Ile Leu Ile Phe Thr Tyr Leu Asn Met Phe Tyr Phe Phe
 1 5 10 15
 Pro Pro Leu Gln Ile Leu Ala Glu Asn Leu Thr Met Val Thr Glu Phe
 20 25 30
 Leu Leu Leu Gly Phe Ser Ser Leu Gly Glu Ile Gln Leu Ala Leu Phe
 35 40 45
 Val Val Phe Leu Phe Leu Tyr Leu Val Ile Leu Ser Gly Asn Val Thr
 50 55 60
 Ile Ile Ser Val Ile His Leu Asp Lys Ser Leu His Thr Pro Met Tyr
 65 70 75 80

Phe Phe Leu Gly Ile Leu Ser Thr Ser Glu Thr Phe Tyr Thr Phe Val
85 90 95
Ile Leu Pro Lys Met Leu Ile Asn Leu Leu Ser Val Ala Arg Thr Ile
100 105 110
Ser Phe Asn Cys Cys Ala Leu Gln Met Phe Phe Phe Leu Gly Phe Ala
115 120 125
Ile Thr Asn Cys Leu Leu Leu Gly Val Met Gly Tyr Asp Arg Tyr Ala
130 135 140
Ala Ile Cys His Pro Leu His Tyr Pro Thr Leu Met Ser Trp Gln Val
145 150 155 160
Cys Gly Lys Leu Ala Ala Ala Cys Ala Ile Gly Gly Phe Leu Ala Ser
165 170 175
Leu Thr Val Val Asn Leu Val Phe Ser Leu Pro Phe Cys Ser Ala Asn
180 185 190
Lys Val Asn His Tyr Phe Cys Asp Ile Ser Ala Val Ile Leu Leu Ala
195 200 205
Cys Thr Asn Thr Asp Val Asn Glu Phe Val Ile Phe Ile Cys Gly Val
210 215 220
Leu Val Leu Val Val Pro Phe Leu Phe Ile Cys Val Ser Tyr Leu Cys
225 230 235 240
Ile Leu Arg Thr Ile Leu Lys Ile Pro Ser Ala Glu Gly Arg Arg Lys
245 250 255
Ala Phe Ser Thr Cys Ala Ser His Leu Ser Val Val Ile Val His Tyr
260 265 270
Gly Cys Ala Ser Phe Ile Tyr Leu Arg Pro Thr Ala Asn Tyr Val Ser
275 280 285
Asn Lys Asp Arg Leu Val Thr Val Thr Tyr Thr Ile Val Thr Pro Leu
290 295 300
Leu Asn Pro Met Val Tyr Ser Leu Arg Asn Lys Asp Val Gln Leu Ala
305 310 315 320
Ile Arg Lys Val Leu Gly Lys Lys Gly Ser Leu Lys Leu Tyr Asn
325 330 335

<210> 452
<211> 1008
<212> DNA
<213> Homo sapiens

<400> 452
atgccccaaa ttcttatatt cacatacctg aatatgtttt acttctttcc ccctttgcag 60
atcttggcag aaaacctcac catggtcacc gaattcctgt tgctgggttt ttccagcctt 120

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ggtgaaattc agctggccct cttttagtct tttctttttc tgtatctagt cattcttagt 180
ggcaatgtca ccattatcag tgatcatcac ctggataaaa gcctccacac accaatgtac 240
ttcttccttg gcattctctc aacatctgag accttctaca cctttgtcat tctacccaag 300
atgctcatca atctactttc tgtggccagg acaatctcct tcaactgttg tgccttcaa 360
atgttcttct tccttggttt tgccattacc aactgcctgc tattgggtgt gatgggttat 420
gatcgctatg ctgccatttg tcacctctg cattacccca ctcttatgag ctggcagggtg 480
tgtggaaaac tggcagctgc ctgtgcaatt ggtggcttct tggcctctct tacagtagta 540
aatttagttt tcagcctccc tttttgtagc gccaaacaaag tcaatcatta cttctgtgac 600
atctcagcag tcattcttct ggcttgtacc aacacagatg ttaacgaatt tgtgatattc 660
atttgtggag ttcttgtact tgtggttccc tttctgttta tctgtgttct ttatctctgc 720
attctgagga ctatcctgaa gattccctca gctgagggca gacggaaagc gttttccacc 780
tgcgctctc acctcagtgt tgttattgtt cattatggct gtgcttcctt catctacctg 840
aggcctacag caaactatgt gtccaacaaa gacaggctgg tgacggtgac atacacgatt 900
gtcactccat tactaaacct catggtttat agcctcagaa acaaggatgt ccaacttgct 960
atcagaaaaag tgttgggcaa gaaagggttct ctaaaactat ataattga 1008

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<210> 453

<211> 308

<212> PRT

<213> Homo sapiens

<400> 453

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Met Asn Thr Thr Leu Phe His Pro Tyr Ser Phe Leu Leu Leu Gly Ile
  1              5              10              15

Pro Gly Leu Glu Ser Met His Leu Trp Val Gly Phe Pro Phe Phe Ala
      20              25              30

Val Phe Leu Thr Ala Val Leu Gly Asn Ile Thr Ile Leu Phe Val Ile
      35              40              45

Gln Thr Asp Ser Ser Leu His His Pro Met Phe Tyr Phe Leu Ala Ile
      50              55              60

Leu Ser Ser Ile Asp Pro Gly Leu Ser Thr Ser Thr Ile Pro Lys Met
      65              70              75              80

Leu Gly Thr Phe Trp Phe Thr Leu Arg Glu Ile Ser Phe Glu Gly Cys
      85              90              95

Leu Thr Gln Met Phe Phe Ile His Leu Cys Thr Gly Met Glu Ser Ala
      100              105              110

Val Leu Val Ala Met Ala Tyr Asp Cys Tyr Val Ala Ile Cys Asp Pro
      115              120              125

Leu Cys Tyr Thr Leu Val Leu Thr Asn Lys Val Val Ser Val Met Ala
      130              135              140

Leu Ala Ile Phe Leu Arg Pro Leu Val Phe Val Ile Pro Phe Val Leu
      145              150              155              160

Phe Ile Leu Arg Leu Pro Phe Cys Gly His Gln Ile Ile Pro His Thr
      165              170              175

Tyr Gly Glu His Met Gly Ile Ala Arg Leu Ser Cys Ala Ser Ile Arg

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180	185	190
Val Asn Ile Ile Tyr Gly Leu Cys Ala Ile Ser Ile Leu Val Phe Asp		
195	200	205
Ile Ile Ala Ile Val Ile Ser Tyr Val Gln Ile Leu Cys Ala Val Phe		
210	215	220
Leu Leu Ser Ser His Asp Ala Arg Leu Lys Ala Phe Ser Thr Cys Gly		
225	230	235
Ser His Val Cys Val Met Leu Thr Phe Tyr Met Pro Ala Phe Phe Ser		
245	250	255
Phe Met Thr His Arg Phe Gly Arg Asn Ile Pro His Phe Ile His Ile		
260	265	270
Leu Leu Ala Asn Phe Tyr Val Val Ile Pro Pro Ala Leu Asn Ser Val		
275	280	285
Ile Tyr Gly Val Arg Thr Lys Gln Ile Arg Ala Gln Val Leu Lys Met		
290	295	300
Phe Phe Asn Lys		
305		

<210> 454
 <211> 927
 <212> DNA
 <213> Homo sapiens

<400> 454
 atgaataacca ctctattttca tccttactct ttccttcttc tgggaattcc tgggctggaa 60
 agtatgcatc tctgggttgg ttttcctttc tttgctgtgt tcctgacagc tgtccttggg 120
 aatatcacca tcctttttgt gattcagact gacagtagtc tccatcatcc catgtttctac 180
 ttcttgccca ttctgtcatc tattgaccog ggctgtctca catccaccat ccctaaaatg 240
 cttggcacct tctgggttac cctgagagaa atctcctttg aaggatgcct taccagatg 300
 ttcttcatcc acctgtgcac tggcatggaa tcagctgtgc ttgtggccat ggcctatgat 360
 tgctatgtgg ccatctgtga ccctctttgc tacacgttgg tgctgacaaa caaggtgggtg 420
 tcagttatgg cactggccat ctttctgaga cccttagtct ttgtcatacc ctttgttcta 480
 tttatcctaa ggcttccatt ttgtggacac caaattattc ctcatactta tgggtgagcac 540
 atgggcatg cccgcctgtc ttgtgccagc atcagggtta acatcatcta tggcttatgt 600
 gccatctcta tcctgggtctt tgacatcata gcaattgtca tttcctatgt acagatcctt 660
 tgtgtgtgat ttctactctc ttcacatgat gcacgactca aggcattcag cacctgtggc 720
 tctcatgtgt gtgtcatgtt gactttctat atgcctgcat ttttctcatt catgacccat 780
 aggtttggtc ggaataatac tcactttatc cacattcttc tggctaattt ctatgtagtc 840
 attccacctg ctctcaactc tgtaatttat ggtgtcagaa ccaaacagat tagagcacaa 900
 gtgctgaaaa tgtttttcaa taaataa 927

<210> 455
 <211> 313
 <212> PRT
 <213> Homo sapiens

<400> 455

Met	Glu	Gln	Val	Asn	Lys	Thr	Val	Val	Arg	Glu	Phe	Val	Val	Leu	Gly	1	5	10	15
Phe	Ser	Ser	Leu	Ala	Arg	Leu	Gln	Gln	Leu	Leu	Phe	Val	Ile	Phe	Leu	20	25	30	
Leu	Leu	Tyr	Leu	Phe	Thr	Leu	Gly	Thr	Asn	Ala	Ile	Ile	Ile	Ser	Thr	35	40	45	
Ile	Val	Leu	Asp	Arg	Ala	Leu	His	Thr	Pro	Met	Tyr	Phe	Phe	Leu	Ala	50	55	60	
Ile	Leu	Ser	Cys	Ser	Glu	Ile	Cys	Tyr	Thr	Phe	Val	Ile	Val	Pro	Lys	65	70	75	80
Met	Leu	Val	Asp	Leu	Leu	Ser	Gln	Lys	Lys	Thr	Ile	Ser	Phe	Leu	Gly	85	90	95	
Cys	Ala	Ile	Gln	Met	Phe	Ser	Phe	Leu	Phe	Phe	Gly	Ser	Ser	His	Ser	100	105	110	
Phe	Leu	Leu	Ala	Ala	Met	Gly	Tyr	Asp	Arg	Tyr	Met	Ala	Ile	Cys	Asn	115	120	125	
Pro	Leu	Arg	Tyr	Ser	Val	Leu	Met	Gly	His	Gly	Val	Cys	Met	Gly	Leu	130	135	140	
Met	Ala	Ala	Ala	Cys	Ala	Cys	Gly	Phe	Thr	Val	Ser	Leu	Val	Thr	Thr	145	150	155	160
Ser	Leu	Val	Phe	His	Leu	Pro	Phe	His	Ser	Ser	Asn	Gln	Leu	His	His	165	170	175	
Phe	Phe	Cys	Asp	Ile	Ser	Pro	Val	Leu	Lys	Leu	Ala	Ser	Gln	His	Ser	180	185	190	
Gly	Phe	Ser	Gln	Leu	Val	Ile	Phe	Met	Leu	Gly	Val	Phe	Ala	Leu	Val	195	200	205	
Ile	Pro	Leu	Leu	Leu	Ile	Leu	Val	Ser	Tyr	Ile	Arg	Ile	Ile	Ser	Ala	210	215	220	
Ile	Leu	Lys	Ile	Pro	Ser	Ser	Val	Gly	Arg	Tyr	Lys	Thr	Phe	Ser	Thr	225	230	235	240
Cys	Ala	Ser	His	Leu	Ile	Val	Val	Thr	Val	His	Tyr	Ser	Cys	Ala	Ser	245	250	255	
Phe	Ile	Tyr	Leu	Arg	Pro	Lys	Thr	Asn	Tyr	Thr	Ser	Ser	Gln	Asp	Thr	260	265	270	
Leu	Ile	Ser	Val	Ser	Tyr	Thr	Ile	Leu	Thr	Pro	Leu	Phe	Asn	Pro	Met	275	280	285	
Ile	Tyr	Ser	Leu	Arg	Asn	Lys	Glu	Phe	Lys	Ser	Ala	Leu	Arg	Arg	Thr	290	295	300	

Ile Gly Gln Thr Phe Tyr Pro Leu Ser
305 310

<210> 456
<211> 942
<212> DNA
<213> Homo sapiens

<400> 456
atggagcaag tcaataagac tgtgggtgaga gagttcgtcg tcctcgggctt ctcatccctg 60
gccaggctgc agcagctgct ctttggtatc ttctcgtctc tctacctgtt cactctgggc 120
accaatgcaa tcatcatttc caccattgtg ctggacagag cccttcatac tcccatgtac 180
ttcttccttg ccaccccttc ttgctctgag atttgctata cctttgtcat tgtacccaag 240
atgctgggtg acctgctgct ccagaagaag accatttctt tcctgggctg tgccatccaa 300
atgttttcct tcctcttctt tggtcctct cactccttcc tgctggcagc catgggctat 360
gatcgctata tggccatctg taaccactg cgctactcag tgctcatggg acatgggggtg 420
tgtatgggac taatggctgc tgccctgtgcc tgtggcttca ctgtctccct ggtcaccacc 480
tccctagtat ttcactctgc cttccactcc tccaaccagc tccatcactt cttctgtgac 540
atctcccctg tccttaaact ggcactctcag cactccggct tcagtcagct ggcatatcc 600
atgcttggtg tatttgccctt ggctattcct ctgctactta tcctagtctc ctacatccgc 660
atcatctctg ccattctaaa aatcccttcc tccgttgga gatacaagac cttctccacc 720
tgtgcctccc atctcattgt ggtaactgtt cactacagtt gtgcctcttt catctactta 780
aggcccaaga ctaattacac ttcaagccaa gacaccctaa tatctgtgtc atacaccatc 840
cttaccatcat tgttcaatcc aatgatttat agtctgagaa ataaggaatt caaatcagcc 900
ctacgaagaa caatcggcca aactttctat cctcttagtt aa 942

<210> 457
<211> 369
<212> PRT
<213> Homo sapiens

<400> 457
Met Trp Gln Glu Tyr Tyr Phe Leu Asn Val Phe Phe Pro Leu Leu Lys
1 5 10 15
Val Cys Cys Leu Thr Ile Asn Ser His Val Val Ile Leu Leu Pro Trp
20 25 30
Glu Cys Tyr His Leu Ile Trp Lys Ile Leu Pro Tyr Ile Gly Thr Thr
35 40 45
Val Gly Ser Met Glu Glu Tyr Asn Thr Ser Ser Thr Asp Phe Thr Phe
50 55 60
Met Gly Leu Phe Asn Arg Lys Glu Thr Ser Gly Leu Ile Phe Ala Ile
65 70 75 80
Ile Ser Ile Ile Phe Phe Thr Ala Leu Met Ala Asn Gly Val Met Ile
85 90 95
Phe Leu Ile Gln Thr Asp Leu Arg Leu His Thr Pro Met Tyr Phe Leu
100 105 110
Leu Ser His Leu Ser Leu Ile Asp Met Met Tyr Ile Ser Thr Ile Val
115 120 125

Pro Lys Met Leu Val Asn Tyr Leu Leu Asp Gln Arg Thr Ile Ser Phe
 130 135 140
 Val Gly Cys Thr Ala Gln His Phe Leu Tyr Leu Thr Leu Val Gly Ala
 145 150 155 160
 Glu Phe Phe Leu Leu Gly Leu Met Ala Tyr Asp Arg Tyr Val Ala Ile
 165 170 175
 Cys Asn Pro Leu Arg Tyr Pro Val Leu Met Ser Arg Arg Val Cys Trp
 180 185 190
 Met Ile Ile Ala Gly Ser Trp Phe Gly Gly Ser Leu Asp Gly Phe Leu
 195 200 205
 Leu Thr Pro Ile Thr Met Ser Phe Pro Phe Cys Asn Ser Arg Glu Ile
 210 215 220
 Asn His Phe Phe Cys Glu Ala Pro Ala Val Leu Lys Leu Ala Cys Ala
 225 230 235 240
 Asp Thr Ala Leu Tyr Glu Thr Val Met Tyr Val Cys Cys Val Leu Met
 245 250 255
 Leu Leu Ile Pro Phe Ser Val Val Leu Ala Ser Tyr Ala Arg Ile Leu
 260 265 270
 Thr Thr Val Gln Cys Met Ser Ser Val Glu Gly Arg Lys Lys Ala Phe
 275 280 285
 Ala Thr Cys Ser Ser His Met Thr Val Val Ser Leu Phe Tyr Gly Ala
 290 295 300
 Ala Met Tyr Thr Tyr Met Leu Pro His Ser Tyr His Lys Pro Ala Gln
 305 310 315 320
 Asp Lys Val Leu Ser Val Phe Tyr Thr Ile Leu Thr Pro Met Leu Asn
 325 330 335
 Pro Leu Ile Tyr Ser Leu Arg Asn Lys Asp Val Thr Gly Ala Leu Lys
 340 345 350
 Arg Ala Leu Gly Arg Phe Lys Gly Pro Gln Arg Val Ser Gly Gly Val
 355 360 365
 Phe

<210> 458

<211> 1110

<212> DNA

<213> Homo sapiens

<400> 458

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atattacctt atacggcac aactgtagga tcaatggaag agtacaacac atcctctaca 180
gacttcactt tcatggggct gttcaacaga aaggaaacct caggtcttat ttttgccatc 240
atctctatca tcttcttcac cgcactgatg gccaatgggg ttatgatctt cctgatccaa 300
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accatttcct ttgtgggggtg cacagctcaa cacttcctct accttaccct tgtgggagct 480
gaattcttcc tgctggggcct catggcctat gaccgctatg tggccatttg caaccctctg 540
agataccctg tcctcatgag ccgcggggtc tgttggatga ttatagcagg ttctctgggtt 600
gggggctctt tggatggcct cctcctaacc cccatcacca tgagctttcc cttctgcaat 660
tcccgggaga ttaaccactt cttctgtgag gcaccagcag tcctgaagtt ggcagtgtgca 720
gacacagccc tctacgagac agtgatgtat gtgtgctgtg ttttgatgct gctgattcct 780
ttctctgtag tccttgcttc ctatgccga atcctgacta cagttcagtg catgagctca 840
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ttctacgggg ctgccatgta cacctacatg ctgccacatt cttaccacaa gccagcccag 960
gacaaagtcc tctctgtgtt ttacaccatt ctcacacca tgctgaacct cctcatctac 1020
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cctcaaaggg tgtcaggagg tgtcttttga 1110

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<210> 459

<211> 312

<212> PRT

<213> Homo sapiens

<400> 459

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Met Asp Leu Lys Asn Gly Ser Leu Val Thr Glu Phe Ile Leu Leu Gly
 1             5             10             15

Phe Phe Gly Arg Trp Glu Leu Gln Ile Phe Phe Phe Val Thr Phe Ser
 20             25             30

Leu Ile Tyr Gly Ala Thr Val Met Gly Asn Ile Leu Ile Met Val Thr
 35             40             45

Val Thr Cys Arg Ser Thr Leu His Ser Pro Leu Tyr Phe Leu Leu Gly
 50             55             60

Asn Leu Ser Phe Leu Asp Met Cys Leu Ser Thr Ala Thr Thr Pro Lys
 65             70             75             80

Met Ile Ile Asp Leu Leu Thr Asp His Lys Thr Ile Ser Val Trp Gly
 85             90             95

Cys Val Thr Gln Met Phe Phe Met His Phe Phe Gly Gly Ala Glu Met
100             105             110

Thr Leu Leu Ile Ile Met Ala Phe Asp Arg Tyr Val Ala Ile Cys Lys
115             120             125

Pro Leu His Tyr Arg Thr Ile Met Ser His Lys Leu Leu Lys Gly Phe
130             135             140

Ala Ile Leu Ser Trp Ile Ile Gly Phe Leu His Ser Ile Ser Gln Ile
145             150             155             160

Val Leu Thr Met Asn Leu Pro Phe Cys Gly His Asn Val Ile Asn Asn

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165	170	175
Ile Phe Cys Asp Leu Pro Leu Val	Ile Lys Leu Ala Cys Ile Glu Thr	
180	185	190
Tyr Thr Leu Glu Leu Phe Val	Ile Ala Asp Ser Gly Leu Leu Ser Phe	
195	200	205
Thr Cys Phe Ile Leu Leu Leu Val	Ser Tyr Ile Val Ile Leu Val Ser	
210	215	220
Val Pro Lys Lys Ser Ser His Gly Leu Ser	Lys Ala Leu Ser Thr Leu	
225	230	235
Ser Ala His Ile Ile Val Val Thr Leu	Phe Phe Gly Pro Cys Ile Phe	
245	250	255
Ile Tyr Val Trp Pro Phe Ser Ser Leu	Ala Ser Asn Lys Thr Leu Ala	
260	265	270
Val Phe Tyr Thr Val Ile Thr Pro Leu Leu	Asn Pro Ser Ile Tyr Thr	
275	280	285
Leu Arg Asn Lys Lys Met Gln Glu Ala Ile	Arg Lys Leu Arg Phe Gln	
290	295	300
Tyr Val Ser Ser Ala Gln Asn Phe		
305	310	

<210> 460
 <211> 939
 <212> DNA
 <213> Homo sapiens

<400> 460
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 ggaaacattc tcattatggg cacagtgaca tgtagggtcaa cccttcattc tcccttgtag 180
 tttctccttg gaaatctctc ttttttggac atgtgtctct ccactgccac aacacccaag 240
 atgatcatag atttgctcac tgaccacaag accatctctg tgtggggctg cgtgaccag 300
 atgttcttca tgcacttctt tgggggtgct gagatgactc ttctgataat catggccttt 360
 gacaggtag tagccatatg taaaccctg cactatagga caatcatgag ccacaagctg 420
 ctaaaggggt ttgcgatact ttcattggata attggttttt tacactccat aagccagata 480
 gttttaacaa tgaacttgcc tttctgtggc cacaatgtca taaacaacat attttgtgat 540
 cttccccttg tgatcaagct tgcttgcat gaaacataca ccctggaatt atttgtcatt 600
 gctgacagcg ggctgctctc tttcacctgt ttcacccctc tgcttgtttc ttacattgtc 660
 atcctgggtca gtgtaccaa aaaatcatca catgggctct ccaaggcgct gtccacattg 720
 tctgccaca tcattgtggt cactctgttc tttggacctt gtatttttat ctatgtttgg 780
 ccattcagta gtttggcaag caataaaact cttgccgtat tttatacagt tatcacaccc 840
 ttactgaatc cgagtattta taccctgaga aataagaaaa tgcaagaggc cataagaaaa 900
 ttacggttcc aatatgttag ttctgcacag aatttctag 939

<210> 461
 <211> 313
 <212> PRT

<213> Homo sapiens

<400> 461

Met	Ser	Pro	Glu	Asn	Gln	Ser	Ser	Val	Ser	Glu	Phe	Leu	Leu	Leu	Gly
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Leu	Pro	Ile	Arg	Pro	Glu	Gln	Gln	Ala	Val	Phe	Phe	Thr	Leu	Phe	Leu
			20					25					30		
Gly	Met	Tyr	Leu	Thr	Thr	Val	Leu	Gly	Asn	Leu	Leu	Ile	Met	Leu	Leu
		35					40					45			
Ile	Gln	Leu	Asp	Ser	His	Leu	His	Thr	Pro	Met	Tyr	Phe	Phe	Leu	Ser
	50					55					60				
His	Leu	Ala	Leu	Thr	Asp	Ile	Ser	Phe	Ser	Ser	Val	Thr	Val	Pro	Lys
65					70					75					80
Met	Leu	Met	Asp	Met	Arg	Thr	Lys	Tyr	Lys	Ser	Ile	Leu	Tyr	Glu	Glu
				85					90					95	
Cys	Ile	Ser	Gln	Met	Tyr	Phe	Phe	Ile	Phe	Phe	Thr	Asp	Leu	Asp	Ser
			100					105					110		
Phe	Leu	Ile	Thr	Ser	Met	Ala	Tyr	Asp	Arg	Tyr	Val	Ala	Ile	Cys	His
		115					120					125			
Pro	Leu	His	Tyr	Thr	Val	Ile	Met	Arg	Glu	Glu	Leu	Cys	Val	Phe	Leu
	130					135					140				
Val	Ala	Val	Ser	Trp	Ile	Leu	Ser	Cys	Ala	Ser	Ser	Leu	Ser	His	Thr
145					150					155					160
Leu	Leu	Leu	Thr	Arg	Leu	Ser	Phe	Cys	Ala	Ala	Asn	Thr	Ile	Pro	His
				165					170					175	
Val	Phe	Cys	Asp	Leu	Ala	Ala	Leu	Leu	Lys	Leu	Ser	Cys	Ser	Asp	Ile
			180					185				190			
Phe	Leu	Asn	Glu	Leu	Val	Met	Phe	Thr	Val	Gly	Val	Val	Val	Ile	Thr
		195					200					205			
Leu	Pro	Phe	Met	Cys	Ile	Leu	Val	Ser	Tyr	Gly	Tyr	Ile	Gly	Ala	Thr
	210					215					220				
Ile	Leu	Arg	Val	Pro	Ser	Thr	Lys	Gly	Ile	His	Lys	Ala	Leu	Ser	Thr
225					230					235					240
Cys	Gly	Ser	His	Leu	Ser	Val	Val	Ser	Leu	Tyr	Tyr	Gly	Ser	Ile	Phe
				245					250					255	
Gly	Gln	Tyr	Leu	Phe	Pro	Thr	Val	Ser	Ser	Ser	Ile	Asp	Lys	Asp	Val
			260					265					270		
Ile	Val	Ala	Leu	Met	Tyr	Thr	Val	Val	Thr	Pro	Met	Leu	Asn	Pro	Phe
		275					280					285			

Ile Tyr Ser Leu Arg Asn Arg Asp Met Lys Glu Ala Leu Gly Lys Leu
 290 295 300

Phe Ser Arg Ala Thr Phe Phe Ser Trp
 305 310

<210> 462
 <211> 966
 <212> DNA
 <213> Homo sapiens

<400> 462
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 gggaaacctgc tcatcatgct gctcatccag ctggactctc accttcacac ccccatgtac 180
 ttcttcctca gccacttggc tctcactgac atctcctttt catctgtcac tgtccctaag 240
 atgctgatgg acatgcggac taagtacaaa tcgatcctct atgaggaatg catttctcag 300
 atgtattttt ttatatatttt tactgacctg gacagcttcc ttattacatc aatggcatat 360
 gaccgatatg ttgccatatg tcacctctc cactacactg tcatcatgag ggaagagctc 420
 tgtgtcttct tagtggctgt atcttggatt ctgtcttgtg ccagctccct ctctcacacc 480
 cttctcctga cccggctgtc tttctgtgct gcgaacacca tcccccatgt cttctgtgac 540
 cttgtgccc tgctcaagct gtctgtctca gatatcttcc tcaatgagct ggtcatgttc 600
 acagtagggg tgggtggctat taccctgcc ttcattgtga tcctgggtatc atatggctac 660
 attggggcca ccatcctgag ggtcccttca accaaaggga tccacaaagc attgtccaca 720
 tgtggctccc atctctctgt ggtgtctctc tattatgggt caatatttgg ccagtagcctt 780
 ttcccgactg taagcagttc tattgacaag gatgtcattg tggctctcat gtacacgggtg 840
 gtcacaccca tgttgaacct ctttatctac agccttagga acagggacat gaaagargcc 900
 cttgggaaac tcttcagtag agcaacattt ttctccttgg tgacatctga ctttttaaaa 960
 aattag 966

<210> 463
 <211> 307
 <212> PRT
 <213> Homo sapiens

<400> 463
 Met Gly Gln His Asn Leu Thr Val Leu Thr Glu Phe Ile Leu Met Glu
 1 5 10 15
 Leu Thr Arg Arg Pro Glu Leu Gln Ile Pro Leu Phe Gly Val Phe Leu
 20 25 30
 Val Ile Tyr Leu Ile Thr Val Val Gly Asn Leu Thr Met Ile Ile Leu
 35 40 45
 Thr Lys Leu Asp Ser His Leu His Thr Pro Met Tyr Phe Ser Ile Arg
 50 55 60
 His Leu Ala Ser Val Asp Leu Gly Asn Ser Thr Val Ile Cys Pro Lys
 65 70 75 80
 Val Leu Ala Asn Phe Val Val Asp Arg Asn Thr Ile Ser Tyr Tyr Ala
 85 90 95
 Cys Ala Ala Gln Leu Ala Phe Phe Leu Met Phe Ile Ile Ser Glu Phe

100	105	110
Phe Ile Leu Ser Ala Met Ala Tyr Asp Arg Tyr Val Ala Ile Cys Asn 115 120 125		
Pro Leu Leu Tyr Tyr Val Ile Met Ser Gln Arg Leu Cys His Val Leu 130 135 140		
Val Gly Ile Gln Tyr Leu Tyr Ser Thr Phe Gln Ala Leu Met Phe Thr 145 150 155 160		
Ile Lys Ile Phe Thr Leu Thr Phe Cys Gly Ser Asn Val Ile Ser His 165 170 175		
Phe Tyr Cys Asp Asp Val Pro Leu Leu Pro Met Leu Cys Ser Asn Ala 180 185 190		
Gln Glu Ile Glu Leu Leu Ser Ile Leu Phe Ser Val Phe Asn Leu Ile 195 200 205		
Ser Ser Phe Leu Ile Val Leu Val Ser Tyr Met Leu Ile Leu Leu Ala 210 215 220		
Ile Cys Gln Met His Ser Ala Glu Gly Arg Lys Lys Ala Phe Ser Thr 225 230 235 240		
Cys Gly Ser His Leu Thr Val Val Val Phe Tyr Gly Ser Leu Leu 245 250 255		
Phe Met Tyr Met Gln Pro Asn Ser Thr His Phe Phe Asp Thr Asp Lys 260 265 270		
Met Ala Ser Val Phe Tyr Thr Leu Val Ile Pro Met Leu Asn Pro Leu 275 280 285		
Ile Tyr Ser Leu Arg Asn Glu Glu Val Lys Asn Ala Phe Tyr Lys Leu 290 295 300		
Phe Glu Asn 305		

<210> 464
 <211> 924
 <212> DNA
 <213> Homo sapiens

<400> 464
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 ggcaacctaa ctatgatcat tttgaccaa ctggactccc acttacatac acctatgtac 180
 ttttctatca gacatttggc ttctgttgat ctgggtaatt ctactgtcat ttgtcccaag 240
 gtgctggcaa attttgttgt ggatcgaaat actatttcct attatgcatg tgctgcacag 300
 ctggcattct tccttatgtt cattatcagt gaatttttca tcctgtcagc catggcctat 360
 gaccgctatg tggccatttg taaccctctg ctctattatg ttattatgtc tcagcgactg 420
 tgtcatgtac tgggtgggcat tcaatatctc tacagcacat ttcaggctct gatgttcaact 480
 attaagattt ttacattgac cttctgtggc tctaattgtca tcagtcattt ttactgtgat 540

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gatgttcctt tgctacctat gctttgctca aatgcacagg aaatagaatt gttgagcata 600
ctattttctg tatttaattt gatctcctcc tttctgatat tcttagtgtc ctacatgttg 660
atthttgttag ctatatgtca aatgcattct gcagagggca ggaaaaaggc tttctccaca 720
tgtggttccc atthgacagt ggtggttgtg ttctatgggt ctctactctt catgtacatg 780
cagcccaatt ccactcactt ctttgatact gataaaaatgg cttctgtgtt ttacacttta 840
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ttctataagc tctttgagaa ttga 924

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<210> 465

<211> 340

<212> PRT

<213> Homo sapiens

<400> 465

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Met Pro Cys Met Pro Cys Ala Leu Pro Thr Gly Gly Leu Leu Pro His
 1                5                10                15

Pro Gln His Thr Met Met Glu Ile Ala Asn Val Ser Ser Pro Glu Val
      20                25                30

Phe Val Leu Leu Gly Phe Ser Thr Arg Pro Ser Leu Glu Thr Val Leu
      35                40                45

Phe Ile Val Val Leu Ser Phe Tyr Met Val Ser Ile Leu Gly Asn Gly
      50                55                60

Ile Ile Ile Leu Val Ser His Thr Asp Val His Leu His Thr Pro Met
      65                70                75                80

Tyr Phe Phe Leu Ala Asn Leu Pro Phe Leu Asp Met Ser Phe Thr Thr
      85                90                95

Ser Ile Val Pro Gln Leu Leu Ala Asn Leu Trp Gly Pro Gln Lys Thr
      100                105                110

Ile Ser Tyr Gly Gly Cys Val Val Gln Phe Tyr Ile Ser His Trp Leu
      115                120                125

Gly Ala Thr Glu Cys Val Leu Leu Ala Thr Met Ser Tyr Asp Arg Tyr
      130                135                140

Ala Ala Ile Cys Arg Pro Leu His Tyr Thr Val Ile Met His Pro Gln
      145                150                155                160

Leu Cys Leu Gly Leu Ala Leu Ala Ser Trp Leu Gly Gly Leu Thr Thr
      165                170                175

Ser Met Val Gly Ser Thr Leu Thr Met Leu Leu Pro Leu Cys Gly Asn
      180                185                190

Asn Cys Ile Asp His Phe Phe Cys Glu Met Pro Leu Ile Met Gln Leu
      195                200                205

Ala Cys Val Asp Thr Ser Leu Asn Glu Met Glu Met Tyr Leu Ala Ser
      210                215                220

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Phe Val Phe Val Val Leu Pro Leu Gly Leu Ile Leu Val Ser Tyr Gly
 225 230 235 240
 His Ile Ala Arg Ala Val Leu Lys Ile Arg Ser Ala Glu Gly Arg Arg
 245 250 255
 Lys Ala Phe Asn Thr Cys Ser Ser His Val Ala Val Val Ser Leu Phe
 260 265 270
 Tyr Gly Ser Ile Ile Phe Met Tyr Leu Gln Pro Ala Lys Ser Thr Ser
 275 280 285
 His Glu Gln Gly Lys Phe Ile Ala Leu Phe Tyr Thr Val Val Thr Pro
 290 295 300
 Ala Leu Asn Pro Leu Ile Tyr Thr Leu Arg Asn Thr Glu Val Lys Ser
 305 310 315 320
 Ala Leu Arg His Met Val Leu Glu Asn Cys Cys Gly Ser Ala Gly Lys
 325 330 335
 Leu Ala Gln Ile
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<210> 466
 <211> 1023
 <212> DNA
 <213> Homo sapiens

<400> 466
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 cgaccctcac tagaaactgt cctcttcata gttgtcttga gtttttacat ggtatcgatc 180
 ttgggcaatg gcatcatcat tctgggtctcc catacagatg tgcacctcca cacacctatg 240
 tacttctttc ttgccaacct ccccttctctg gacatgagct tcaccacgag cattgtccca 300
 cagtccttgg ctaacctctg gggaccacag aaaaccataa gctatggagg gtgtgtgggtc 360
 cagttctata tctcccattg gctgggggca accgagtgtg tcctgctggc caccatgtcc 420
 tatgaccgct acgctgccat ctgcaggcca ctccattaca ctgtcattat gcatccacag 480
 ctttgctttg ggctagcttt ggcctctctg ctgggggggtc tgaccaccag catgggtgggc 540
 tccacgctca ccatgctcct accgctgtgt ggggaacaatt gcatcgacca cttcttttgc 600
 gagatgcccc tcattatgca actggcttgt gtggatacca gcctcaatga gatggagatg 660
 tacctggcca gctttgtctt tgttgtctct cctctggggc tcctctctgt ctcttacggc 720
 cacattgccc gggccgtggt gaagatcagg tcagcagaag ggcggagaaa ggcattcaac 780
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 ctccagccag ccaagagcac ctcccatgag cagggcaagt tcatagctct gttctacacc 900
 gtagtcactc ctgcgctgaa cccacttatt tacaccctga ggaacacgga ggtgaagagc 960
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 tag 1023

<210> 467
 <211> 338
 <212> PRT
 <213> Homo sapiens

<400> 467

Met	Lys	Ser	Gln	Ile	Glu	Lys	Ser	Asp	Leu	Lys	Tyr	Arg	Ala	Ile	Leu	1	5	10	15
Leu	Gln	Lys	Val	Thr	Arg	Met	Phe	Leu	Leu	Phe	Trp	Val	Leu	Leu	Leu	20	25	30	
Val	Leu	Ser	Arg	Leu	Leu	Val	Val	Met	Gly	Arg	Gly	Asn	Ser	Thr	Glu	35	40	45	
Val	Thr	Glu	Phe	His	Leu	Leu	Gly	Phe	Gly	Val	Gln	His	Glu	Phe	Gln	50	55	60	
His	Val	Leu	Phe	Ile	Val	Leu	Leu	Leu	Ile	Tyr	Val	Thr	Ser	Leu	Ile	65	70	75	80
Gly	Asn	Ile	Gly	Met	Ile	Leu	Leu	Ile	Lys	Thr	Asp	Ser	Arg	Leu	Gln	85	90	95	
Thr	Pro	Met	Tyr	Phe	Phe	Pro	Gln	His	Leu	Ala	Phe	Val	Asp	Ile	Cys	100	105	110	
Tyr	Thr	Ser	Ala	Ile	Thr	Pro	Lys	Met	Leu	Gln	Ser	Phe	Thr	Glu	Glu	115	120	125	
Asn	Asn	Leu	Ile	Thr	Phe	Arg	Gly	Cys	Val	Ile	Gln	Phe	Leu	Val	Tyr	130	135	140	
Ala	Thr	Phe	Ala	Thr	Ser	Asp	Cys	Tyr	Leu	Leu	Ala	Ile	Met	Ala	Met	145	150	155	160
Asp	Cys	Tyr	Val	Ala	Ile	Cys	Lys	Pro	Leu	Arg	Tyr	Pro	Met	Ile	Met	165	170	175	
Ser	Gln	Thr	Val	Tyr	Ile	Gln	Leu	Val	Ala	Gly	Ser	Tyr	Ile	Ile	Gly	180	185	190	
Ser	Ile	Asn	Ala	Ser	Val	His	Thr	Gly	Phe	Thr	Phe	Ser	Leu	Ser	Phe	195	200	205	
Cys	Lys	Ser	Asn	Lys	Ile	Asn	His	Phe	Phe	Cys	Asp	Gly	Leu	Pro	Ile	210	215	220	
Leu	Ala	Leu	Ser	Cys	Ser	Asn	Ile	Asp	Ile	Asn	Ile	Ile	Leu	Asp	Val	225	230	235	240
Val	Phe	Val	Gly	Phe	Asp	Leu	Met	Phe	Thr	Glu	Leu	Val	Ile	Ile	Phe	245	250	255	
Ser	Tyr	Ile	Tyr	Ile	Met	Val	Thr	Ile	Leu	Lys	Met	Ser	Ser	Thr	Ala	260	265	270	
Gly	Arg	Lys	Lys	Ser	Phe	Ser	Thr	Cys	Ala	Ser	His	Leu	Thr	Ala	Val	275	280	285	
Thr	Ile	Phe	Tyr	Gly	Thr	Leu	Ser	Tyr	Met	Tyr	Leu	Gln	Pro	Gln	Ser	290	295	300	

Asn Asn Ser Gln Glu Asn Met Lys Val Ala Ser Ile Phe Tyr Gly Thr
 305 310 315 320

Val Ile Pro Met Leu Asn Pro Leu Ile Tyr Ser Leu Arg Asn Lys Glu
 325 330 335

Gly Lys

<210> 468
 <211> 1017
 <212> DNA
 <213> Homo sapiens

<400> 468
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 acaaggatgt tcctgctttt ctgggtcctt ctcttggtcc tttctagact tttggtagtc 120
 atgggtcgag gaaacagcac tgaagtgact gaattccatc ttctgggatt tgggtgtccaa 180
 cacgaatttc agcatgtcct tttcattgta cttcttctta tctatgtgac ctccctgata 240
 ggaaatattg gaatgatctt actcatcaag accgattcca gacttcaaac acccatgtac 300
 ttttttccac aacatttggc ttttgttgat atctgttata cttctgctat cactcccaag 360
 atgctccaaa gcttcacaga agaaaataat ttgataacat ttcggggctg tgtgatacaa 420
 ttcttagttt atgcaacatt tgcaaccagt gactgttacc tcctagctat tatggcaatg 480
 gattgttatg ttgccatctg taagcccctt cgctatccca tgatcatgtc ccaaacagtc 540
 tacatccaac tcgtagctgg ctcatatatt ataggctcaa taaatgcctc tgtacataca 600
 ggttttacat tttcactgtc cttctgcaag tctaataaaa tcaatcactt tttctgtgat 660
 ggtctcccaa ttcttgccct ttcattgtcc aacattgaca tcaacatcat tctagatgtt 720
 gtctttgtgg gatttgactt gatgttctact gagttggtca tcatcttttc ctacatctac 780
 attatgggtc ccattcctgaa gatgtcttct actgctggga ggaaaaaatc cttctccaca 840
 tgtgcctccc acctgacagc agtaaccatt ttctatggga cactctctta catgtactta 900
 cagcctcagt ctaataattc tcaggagaat atgaaagtag cctctatatt ttatggcact 960
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<210> 469
 <211> 311
 <212> PRT
 <213> Homo sapiens

<400> 469
 Met Glu Asn Gln Ser Ser Ile Ser Glu Phe Phe Leu Arg Gly Ile Ser
 1 5 10 15
 Ala Pro Pro Glu Gln Gln Ser Leu Phe Gly Ile Phe Leu Cys Met
 20 25 30
 Tyr Leu Val Thr Leu Thr Gly Asn Leu Leu Ile Ile Leu Ala Ile Gly
 35 40 45
 Ser Asp Leu His Leu His Thr Pro Met Tyr Phe Phe Leu Ala Asn Leu
 50 55 60
 Ser Phe Val Asp Met Gly Leu Thr Ser Ser Thr Val Thr Lys Met Leu
 65 70 75 80
 Val Asn Ile Gln Thr Arg His His Thr Ile Ser Tyr Thr Gly Cys Leu

85					90					95					
Thr	Gln	Met	Tyr	Phe	Phe	Leu	Met	Phe	Gly	Asp	Leu	Asp	Ser	Phe	Phe
			100					105					110		
Leu	Ala	Ala	Met	Ala	Tyr	Asp	Arg	Tyr	Val	Ala	Ile	Cys	His	Pro	Leu
			115				120					125			
Cys	Tyr	Ser	Thr	Val	Met	Arg	Pro	Gln	Val	Cys	Ala	Leu	Met	Leu	Ala
			130			135					140				
Leu	Cys	Trp	Val	Leu	Thr	Asn	Ile	Val	Ala	Leu	Thr	His	Thr	Phe	Leu
145					150					155					160
Met	Ala	Arg	Leu	Ser	Phe	Cys	Val	Thr	Gly	Glu	Ile	Ala	His	Phe	Phe
				165					170					175	
Cys	Asp	Ile	Thr	Pro	Val	Leu	Lys	Leu	Ser	Cys	Ser	Asp	Thr	His	Ile
			180					185					190		
Asn	Glu	Met	Met	Val	Phe	Val	Leu	Gly	Gly	Thr	Val	Leu	Ile	Val	Pro
			195				200					205			
Phe	Leu	Cys	Ile	Val	Thr	Ser	Tyr	Ile	His	Ile	Val	Pro	Ala	Ile	Leu
	210					215					220				
Arg	Val	Arg	Thr	Arg	Gly	Gly	Val	Gly	Lys	Ala	Phe	Ser	Thr	Cys	Ser
225					230					235					240
Ser	His	Leu	Cys	Val	Val	Cys	Val	Phe	Tyr	Gly	Thr	Leu	Phe	Ser	Ala
				245					250					255	
Tyr	Leu	Cys	Pro	Pro	Ser	Ile	Ala	Ser	Glu	Glu	Lys	Asp	Ile	Ala	Ala
			260					265					270		
Ala	Ala	Met	Tyr	Thr	Ile	Val	Thr	Pro	Met	Leu	Asn	Pro	Phe	Ile	Tyr
		275					280					285			
Ser	Leu	Arg	Asn	Lys	Asp	Met	Lys	Gly	Ala	Leu	Lys	Arg	Leu	Phe	Ser
	290					295					300				
His	Arg	Ser	Ile	Val	Ser	Ser									
305					310										

<210> 470

<211> 936

<212> DNA

<213> Homo sapiens

<400> 470

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ctgctcatca tcttgccat tggtcttgac ctgcacctcc acaccccat gtactttttc 180
ttggccaacc tgtcttttgt tgacatgggt ttaacgtcct ccacagttac caagatgctg 240
gtgaatatac agactcggca tcacaccatc tcctatacgg gttgcctcac gcaaattgat 300
ttctttctga tgtttgggtga tctagacagc ttcttctctg ctgccatggc gtatgaccgc 360

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tatgtggcca tttgccaccc cctctgctac tccacagtca tgaggcccca agtctgtgcc 420
ctaagtcttg cattgtgctg ggtcctcacc aatatcgctg ccctgactca cacgttcctc 480
atggctcggg tgccttctg tgtgactggg gaaattgctc actttttctg tgacatcact 540
cctgtcctga agctgtcatg ttctgacacc cacatcaacg agatgatggg ttttgtcttg 600
ggaggcaccg tactcatcgt ccccttttta tgcattgtca cctcctacat ccacattgtg 660
ccagctatcc tgagggtccg aaccogtggg ggggtgggca aggccttttc cacctgcagt 720
tcccacctct gcgttgtttg tgtgttctat gggaccctct tcagtgccta cctgtgtcct 780
ccctccattg cctctgaaga gaaggacatt gcagcagctg caatgtacac catagtgcct 840
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aggtcttca gtcacaggag tattgtttcc tcttag 936

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<210> 471
<211> 309
<212> PRT
<213> Homo sapiens

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<400> 471
Met Glu Gly Asn Lys Thr Trp Ile Thr Asp Ile Thr Leu Pro Arg Phe
  1             5             10             15

Gln Val Gly Pro Ala Leu Glu Ile Leu Leu Cys Gly Leu Phe Ser Ala
          20             25             30

Phe Tyr Thr Leu Thr Leu Leu Gly Asn Gly Val Ile Phe Gly Ile Ile
      35             40             45

Cys Leu Asp Cys Lys Leu His Thr Pro Met Tyr Phe Phe Leu Ser His
      50             55             60

Leu Ala Ile Val Asp Ile Ser Tyr Ala Ser Asn Tyr Val Pro Lys Met
      65             70             75             80

Leu Thr Asn Leu Met Asn Gln Glu Ser Thr Ile Ser Phe Phe Pro Cys
          85             90             95

Ile Met Gln Thr Phe Leu Tyr Leu Ala Phe Ala His Val Glu Cys Leu
      100             105             110

Ile Leu Val Val Met Ser Tyr Asp Arg Tyr Ala Asp Ile Cys His Pro
      115             120             125

Leu Arg Tyr Asn Ile Leu Met Ser Trp Arg Val Cys Thr Val Leu Ala
      130             135             140

Val Ala Ser Trp Val Phe Ser Phe Leu Leu Ala Leu Val Pro Leu Val
      145             150             155             160

Leu Ile Leu Arg Leu Pro Phe Cys Gly Pro His Glu Ile Asn His Phe
          165             170             175

Cys Glu Ile Leu Ser Val Leu Lys Leu Ala Cys Ala Asp Thr Trp Leu
          180             185             190

Asn Gln Val Val Ile Phe Ala Ala Cys Val Phe Ile Leu Val Gly Pro
      195             200             205

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Leu Cys Leu Val Leu Val Ser Tyr Leu Arg Ile Leu Ala Ala Ile Leu
 210 215 220
 Arg Ile Gln Ser Gly Glu Gly Arg Arg Lys Ala Phe Ser Thr Cys Ser
 225 230 235 240
 Ser His Leu Cys Val Val Gly Leu Phe Phe Gly Ser Ala Ile Val Thr
 245 250 255
 Tyr Met Ala Pro Lys Ser Arg His Pro Glu Glu Gln Gln Lys Val Leu
 260 265 270
 Ser Leu Phe Tyr Ser Leu Phe Asn Pro Met Leu Asn Pro Leu Ile Tyr
 275 280 285
 Ser Leu Arg Asn Ala Glu Val Lys Gly Ala Leu Arg Arg Ala Leu Arg
 290 295 300
 Lys Glu Arg Leu Thr
 305

<210> 472
 <211> 930
 <212> DNA
 <213> Homo sapiens

<400> 472
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 aatgggggtca tctttgggat tatctgcctg gactgtaagc ttcacacacc catgtacttc 180
 ttctctcac acctggccat tgttgacata tcctatgctt ccaactatgt cccaagatg 240
 ctgacgaatc ttatgaacca ggaaagcacc atctcctttt ttccatgcat aatgcagaca 300
 ttcttgatt tggcttttgc tcacgtagag tgtctgattt tgggtggtgat gtcctatgat 360
 cgctatgcgg acatctgccca ccccttacgt tacaatatcc tcatgagctg gagagtgtgc 420
 actgtcctgg ctgtggcttc ctgggtgttc agcttcctcc tggctctggt ccctttagtt 480
 ctcacctctga ggctgccctt ctgcgggcct catgaaatca accacttctg tgaaatcctg 540
 tctgtcctca agttggcctg tgcctgacacc tggctcaacc aggtggatcat ctttgcagcc 600
 tgcgtgttca tcctgggtggg gccactctgc ctggtgctgg tctcctactt gcgcactcctg 660
 gccgccatct tgaggatcca gtctggggag ggccgcagaa aggccttctc cacctgctcc 720
 tcccaccttt gcgtgggtggg actcttcttt ggcagcgcca ttgtcacgta catggccccc 780
 aagtcgccc atcctgagga gcagcagaaa gttctttccc tgttttacag ccttttcaat 840
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 agggcactga ggaaggagag gctgacgtga 930

<210> 473
 <211> 312
 <212> PRT
 <213> Homo sapiens

<400> 473
 Met Arg Leu Ala Asn Gln Thr Leu Gly Gly Asp Phe Phe Leu Leu Gly
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 Ile Phe Ser Gln Ile Ser His Pro Gly Arg Leu Cys Leu Leu Ile Phe
 20 25 30

Ser Ile Phe Leu Met Ala Val Ser Trp Asn Ile Thr Leu Ile Leu Leu
 35 40 45
 Ile His Ile Asp Ser Ser Leu His Thr Pro Met Tyr Phe Phe Ile Asn
 50 55 60
 Gln Leu Ser Leu Ile Asp Leu Thr Tyr Ile Ser Val Thr Val Pro Lys
 65 70 75 80
 Met Leu Val Asn Gln Leu Ala Lys Asp Lys Thr Ile Ser Val Leu Gly
 85 90 95
 Cys Gly Thr Gln Met Tyr Phe Tyr Leu Gln Leu Gly Gly Ala Glu Cys
 100 105 110
 Cys Leu Leu Ala Ala Met Ala Tyr Asp Arg Tyr Val Ala Ile Cys His
 115 120 125
 Pro Leu Arg Tyr Ser Val Leu Met Ser His Arg Val Cys Leu Leu Leu
 130 135 140
 Ala Ser Gly Cys Trp Phe Val Gly Ser Val Asp Gly Phe Met Leu Thr
 145 150 155 160
 Pro Ile Ala Met Ser Phe Pro Phe Cys Arg Ser His Glu Ile Gln His
 165 170 175
 Phe Phe Cys Glu Val Pro Ala Val Leu Lys Leu Ser Cys Ser Asp Thr
 180 185 190
 Ser Leu Tyr Lys Ile Phe Met Tyr Leu Cys Cys Val Ile Met Leu Leu
 195 200 205
 Ile Pro Val Thr Val Ile Ser Val Ser Tyr Tyr Tyr Ile Ile Leu Thr
 210 215 220
 Ile His Lys Met Asn Ser Val Glu Gly Arg Lys Lys Ala Phe Thr Thr
 225 230 235 240
 Cys Ser Ser His Ile Thr Val Val Ser Leu Phe Tyr Gly Ala Ala Ile
 245 250 255
 Tyr Asn Tyr Met Leu Pro Ser Ser Tyr Gln Thr Pro Glu Lys Asp Met
 260 265 270
 Met Ser Ser Phe Phe Tyr Thr Ile Leu Thr Pro Val Leu Asn Pro Ile
 275 280 285
 Ile Tyr Ser Phe Arg Asn Lys Asp Val Thr Arg Ala Leu Lys Lys Met
 290 295 300
 Leu Ser Val Gln Lys Pro Pro Tyr
 305 310

<210> 474

<211> 939
 <212> DNA
 <213> Homo sapiens

<400> 474
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 atctcacacc ctggccgcct ctgcttgctt atcttcagta tatttttgat ggctgtgtct 120
 tggaatatta cattgatact tctgatccac attgactcct ctctgcatac tcccatgtac 180
 ttctttataa accagctctc actcatagac ttgacatata tttctgtcac tgtcccaaaa 240
 atgctggtga accagctggc caaagacaag accatctcgg tccttgggtg tggcaccag 300
 atgtacttct acctgcagtt gggaggtgca gagtgtgcc ttctagccgc catggcctat 360
 gaccgctatg tggctatctg ccacccctctc cgttactctg tgctcatgag ccatagggta 420
 tgtctcctcc tggcatcagg ctgctgggtt gtgggctcag tggatggctt catgctcact 480
 cccatcgcca tgagcttccc cttctgcaga tcccatgaga ttcagcactt cttctgtgag 540
 gtcctgtctg ttttgaagct ctcttgctca gacacctcac tttacaagat tttcatgtac 600
 ttgtgtgtgt tcatcatgct cctgatacct gtgacggtca tttcagtgtc ttactactat 660
 atcatcctca ccacccataa gatgaactca gttgagggtc ggaaaaaggc cttcaccacc 720
 tgctcctccc acattacagt ggtcagcctc ttctatggag ctgctattta caactacatg 780
 ctcccagct cctaccaaac tcctgagaaa gatatgatgt catccttttt ctacactatc 840
 cttacacctg tcttgaatcc tatcatttac agtttcagga ataaggatgt cacaagggtc 900
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<210> 475
 <211> 331
 <212> PRT
 <213> Homo sapiens

<400> 475
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 Gly Asn Gln Thr Ser Gln Asn Gln Thr Ala Ser Thr Asp Phe Thr Leu
 20 25 30
 Thr Gly Leu Phe Ala Glu Ser Lys His Ala Ala Leu Leu Tyr Thr Val
 35 40 45
 Thr Phe Leu Leu Phe Leu Met Ala Leu Thr Gly Asn Ala Leu Leu Ile
 50 55 60
 Leu Leu Ile His Ser Glu Pro Arg Leu His Thr Pro Met Tyr Phe Phe
 65 70 75 80
 Ile Ser Gln Leu Ala Leu Met Asp Leu Met Tyr Leu Cys Val Thr Val
 85 90 95
 Pro Lys Met Leu Val Gly Gln Val Thr Gly Asp Asp Thr Ile Ser Pro
 100 105 110
 Ser Gly Cys Gly Ile Gln Met Phe Phe His Leu Thr Leu Ala Gly Ala
 115 120 125
 Glu Val Phe Leu Leu Ala Ala Met Ala Tyr Asp Arg Tyr Ala Ala Val
 130 135 140
 Cys Arg Pro Leu His Tyr Pro Leu Leu Met Asn Gln Arg Val Cys Gln

145		150		155		160
Leu Leu Val	Ser Ala Cys Trp Val	Leu Gly Met	Val Asp Gly	Leu Leu		
	165	170		175		
Leu Thr Pro	Ile Thr Met Ser Phe	Pro Phe Cys	Gln Ser Arg	Lys Ile		
	180	185		190		
Leu Ser Phe	Phe Cys Glu Thr	Pro Ala Leu	Leu Lys	Leu Ser Cys	Ser	
	195	200		205		
Asp Val Ser	Leu Tyr Lys Met	Leu Thr Tyr	Leu Cys Cys	Ile Leu Met		
	210	215		220		
Leu Leu Thr	Pro Ile Met Val	Ile Ser Ser	Ser Tyr Thr	Leu Ile Leu		
225	230		235	240		
His Leu Ile	His Arg Met Asn	Ser Ala Ala	Gly Arg Arg	Lys Ala Leu		
	245	250		255		
Ala Thr Cys	Ser Ser His Met	Ile Ile Val	Leu Leu Leu	Phe Gly Ala		
	260	265		270		
Ser Phe Tyr	Thr Tyr Met Leu	Arg Ser Ser	Tyr His Thr	Ala Glu Gln		
	275	280		285		
Asp Met Met	Val Ser Ala Phe	Tyr Thr Ile	Phe Thr Pro	Val Leu Asn		
	290	295		300		
Pro Leu Ile	Tyr Ser Leu Arg	Asn Lys Asp	Val Thr Arg	Ala Leu Arg		
305	310		315	320		
Ser Met Met	Gln Ser Arg Met	Asn Gln Glu	Lys			
	325	330				

<210> 476

<211> 996

<212> DNA

<213> Homo sapiens

<400> 476

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catgctgccc	tcctctacac	cgtgaccttc	cttcttttct	tgatggccct	cactgggaat	180
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atcagccagc	tcgcgctcat	ggatctcatg	tacctatgcy	tgactgtgcc	caagatgctt	300
gtggggcagg	tcactggaga	tgataccatt	tccccgtcag	gctgtgggat	ccagatgttc	360
ttccacctga	ccctggctgg	agctgaggtt	ttcctcctgg	ctgccatggc	ctatgaccga	420
tatgctgctg	tttgcagacc	tctccattac	ccactgctga	tgaaccagag	gggtgtgccag	480
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accatgagct	tccccttttg	ccagtctagg	aaaatcctga	gttttttctg	tgagactcct	600
gccctgctga	agctctcctg	ctctgacgtc	tccctctata	agatgctcac	gtacctgtgc	660
tgcacctcca	tgcttctcac	ccccatcatg	gtcatctcca	gctcatacac	cctcatcctg	720
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agttcctacc	acacagctga	gcaggacatg	atggtgtctg	ccttttacac	catcttcact	900

cctgtgctga accccctcat ttacagtctc cgcaacaaag atgtcaccag ggctctgagg 960
 agcatgatgc agtcaagaat gaaccaagaa aagtag 996

<210> 477
 <211> 316
 <212> PRT
 <213> Homo sapiens

<400> 477
 Met Thr Asn Thr Ser Ser Ser Asp Phe Thr Leu Leu Gly Leu Leu Val
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 Leu Gly Ala Val Thr Ala Asn Leu Val Met Ile Phe Leu Ile Gln Val
 35 40 45
 Asp Ser Arg Leu His Thr Pro Met Tyr Phe Leu Leu Ser Gln Leu Ser
 50 55 60
 Ile Met Asp Thr Leu Phe Ile Cys Thr Thr Val Pro Lys Leu Leu Ala
 65 70 75 80
 Asp Met Val Ser Lys Glu Lys Ile Ile Ser Phe Val Ala Cys Gly Ile
 85 90 95
 Gln Ile Phe Leu Tyr Leu Thr Met Ile Gly Ser Glu Phe Phe Leu Leu
 100 105 110
 Gly Leu Met Ala Tyr Asp Cys Tyr Val Ala Val Cys Asn Pro Leu Arg
 115 120 125
 Tyr Pro Val Leu Met Asn Arg Lys Lys Cys Leu Leu Leu Ala Ala Gly
 130 135 140
 Ala Trp Phe Gly Gly Ser Leu Asp Gly Phe Leu Leu Thr Pro Ile Thr
 145 150 155 160
 Met Asn Val Pro Tyr Cys Gly Ser Arg Ser Ile Asn His Phe Phe Cys
 165 170 175
 Glu Ile Pro Ala Val Leu Lys Leu Ala Cys Ala Asp Thr Ser Leu Tyr
 180 185 190
 Glu Thr Leu Met Tyr Ile Cys Cys Val Leu Met Leu Leu Ile Pro Ile
 195 200 205
 Ser Ile Ile Ser Thr Ser Tyr Ser Leu Ile Leu Leu Thr Ile His Arg
 210 215 220
 Met Pro Ser Ala Glu Gly Arg Lys Lys Ala Phe Thr Thr Cys Ser Ser
 225 230 235 240
 His Leu Thr Val Val Ser Ile Phe Tyr Gly Ala Ala Phe Tyr Thr Tyr
 245 250 255

Val Leu Pro Gln Ser Phe His Thr Pro Glu Gln Asp Lys Val Val Ser
260 265 270

Ala Phe Tyr Thr Ile Val Thr Pro Met Leu Asn Pro Leu Ile Tyr Ser
275 280 285

Leu Arg Asn Lys Asp Val Ile Gly Ala Phe Lys Lys Val Phe Ala Cys
290 295 300

Cys Ser Ser Ala Gln Lys Val Ala Thr Ser Asp Ala
305 310 315

<210> 478
<211> 951
<212> DNA
<213> Homo sapiens

<400> 478
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gtcatgatat tcttgattca ggtggactct cgccctccaca ccccatgta ctttctgctc 180
agtcagctgt ccatcatgga cacccttttc atctgtacca ctgtcccaa actcctggca 240
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tacctgacca tgattggttc tgagttcttc ctccctgggcc tcatggccta tgactgctac 360
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gttctgaaac tggcctgtgc agacacgtcc ttgtatgaaa ctctgatgta catctgctgt 600
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accatccacc gcatgccttc tgctgaaggt cgcaaaaagg ccttcaccac ttgttccctc 720
cacttgactg tagttagcat cttctatggg gctgccttct acacatacgt gctgccccag 780
tccttcacaca ccccgagca ggacaaagta gtgtcagcct tctataccat tgtcacgccc 840
atgcttaatc ctctcatcta cagcctcaga aacaaggacg tcataggggc atttaaaaag 900
gtatttgcat gttgctcatc tgctcagaaa gtagcaacaa gtgatgctta g 951

<210> 479
<211> 317
<212> PRT
<213> Homo sapiens

<400> 479
Met Glu Gln Ser Asn Tyr Ser Val Tyr Ala Asp Phe Ile Leu Leu Gly
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Leu Phe Ser Asn Ala Arg Phe Pro Trp Leu Leu Phe Ala Leu Ile Leu
20 25 30

Leu Val Phe Leu Thr Ser Ile Ala Ser Asn Val Val Lys Ile Ile Leu
35 40 45

Ile His Ile Asp Ser Arg Leu His Thr Pro Met Tyr Phe Leu Leu Ser
50 55 60

Gln Leu Ser Leu Arg Asp Ile Leu Tyr Ile Ser Thr Ile Val Pro Lys

65		70		75		80
Met Leu Val Asp	Gln Val Met Ser Gln Arg Ala Ile Ser Phe Ala Gly					
	85		90			95
Cys Thr Ala Gln His Phe Leu Tyr Leu Thr Leu Ala Gly Ala Glu Phe						
	100		105			110
Phe Leu Leu Gly Leu Met Ser Tyr Asp Arg Tyr Val Ala Ile Cys Asn						
	115		120			125
Pro Leu His Tyr Pro Val Leu Met Ser Arg Lys Ile Cys Trp Leu Ile						
	130		135			140
Val Ala Ala Ala Trp Leu Gly Gly Ser Ile Asp Gly Phe Leu Leu Thr						
	145		150		155	160
Pro Val Thr Met Gln Phe Pro Phe Cys Ala Ser Arg Glu Ile Asn His						
	165		170			175
Phe Phe Cys Glu Val Pro Ala Leu Leu Lys Leu Ser Cys Thr Asp Thr						
	180		185			190
Ser Ala Tyr Glu Thr Ala Met Tyr Val Cys Cys Ile Met Met Leu Leu						
	195		200			205
Ile Pro Phe Ser Val Ile Ser Gly Ser Tyr Thr Arg Ile Leu Ile Thr						
	210		215		220	
Val Tyr Arg Met Ser Glu Ala Glu Gly Arg Gly Lys Ala Val Ala Thr						
	225		230		235	240
Cys Ser Ser His Met Val Val Val Ser Leu Phe Tyr Gly Ala Ala Met						
	245		250			255
Tyr Thr Tyr Val Leu Pro His Ser Tyr His Thr Pro Glu Gln Asp Lys						
	260		265			270
Ala Val Ser Ala Phe Tyr Thr Ile Leu Thr Pro Met Leu Asn Pro Leu						
	275		280			285
Ile Tyr Ser Leu Arg Asn Lys Asp Val Thr Gly Ala Leu Gln Lys Val						
	290		295		300	
Val Gly Arg Cys Val Ser Ser Gly Lys Val Thr Thr Phe						
	305		310		315	

<210> 480

<211> 954

<212> DNA

<213> Homo sapiens

<400> 480

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 agcaacgtgg tcaagatcat tctcatccac atagactccc gcctccacac ccccatgtac 180

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ttcctgctca gccagctctc cctcagggac atcctgtata tttccaccat tgtgccccaa 240
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cacttcctct acttgacctt agcaggggct gagttcttcc tcctaggact catgtcctat 360
gatcgctacg tagccatctg caacctctg cactatcctg tcctcatgag ccgcaagatc 420
tgctgggtga ttgtggcggc agcctggctg ggagggtcta tcgatggttt cttgctcacc 480
cccgtcacca tgcagttccc cttctgtgcc tctcgggaga tcaaccactt cttctgcgag 540
gtgcctgccc ttctgaagct ctctgcacg gacacatcag cctacgagac agccatgtat 600
gtctgctgta ttatgatgct cctcatccct ttctctgtca tctcgggctc ttacacaaga 660
attctcatta ctgtttatag gatgagcgag gcagagggga ggggaaaggc tgtggccacc 720
tgctcctcac acatgggtgt tgtcagcctc ttctatgggg ctgccatgta cacatacgtg 780
ctgcctcatt cttaccacac ccctgagcag gacaaagctg tatctgcctt ctacaccatc 840
cttactccca tgctcaatcc actcatttac agccttagga acaaggatgt cacaggggcc 900
ctacagaagg ttgtggggag gtgtgtgtcc tcaggaaagg taaccacttt ctaa 954

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<210> 481

<211> 311

<212> PRT

<213> Homo sapiens

<400> 481

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Met Gly Gly Lys Gln Pro Trp Val Thr Glu Phe Ile Leu Val Gly Phe
  1              5              10              15

Gln Val Gly Pro Ala Leu Ala Ile Leu Leu Cys Gly Leu Phe Ser Val
      20              25              30

Phe Tyr Thr Leu Thr Leu Leu Gly Asn Gly Val Ile Phe Gly Ile Ile
      35              40              45

Cys Leu Asp Ser Lys Leu His Thr Pro Met Tyr Phe Phe Leu Ser His
      50              55              60

Leu Ala Ile Ile Asp Met Ser Tyr Ala Ser Asn Asn Val Pro Lys Met
      65              70              75              80

Leu Ala Asn Leu Met Asn Gln Lys Ser Thr Ile Ser Phe Val Pro Cys
      85              90              95

Ile Met Gln Thr Phe Leu Tyr Leu Ala Phe Ala Val Thr Glu Cys Leu
      100              105              110

Ile Leu Val Val Met Ser Tyr Asp Arg Tyr Val Ala Ile Cys His Pro
      115              120              125

Phe Gln Tyr Thr Val Ile Met Ser Trp Arg Val Cys Thr Ile Leu Ala
      130              135              140

Ser Thr Cys Trp Ile Ile Ser Phe Leu Met Ala Leu Val His Ile Thr
      145              150              155              160

His Ile Leu Arg Pro Pro Phe Cys Gly Pro Gln Lys Ile Asn His Phe
      165              170              175

Ile Cys Gln Ile Met Ser Val Phe Lys Leu Ala Cys Ala Gly Pro Arg
      180              185              190

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Leu Asn Gln Val Val Leu Tyr Ala Gly Ser Ala Phe Ile Val Glu Gly
 195 200 205
 Pro Leu Cys Leu Glu Leu Val Ser Asn Leu His Ile Leu Ser Arg His
 210 215 220
 Leu Glu Asp Pro Val Met Gly Arg Ala Ala Asp Arg Leu Thr Leu Pro
 225 230 235 240
 Ala Pro Ser His Leu Cys Met Val Gly Leu Leu Phe Gly Ser Thr Met
 245 250 255
 Val Met Tyr Met Ala Pro Lys Ser Arg His Pro Glu Glu Gln Gln Lys
 260 265 270
 Val Leu Ser Leu Phe Tyr Ser Leu Phe Asn Pro Met Leu Asn Pro Leu
 275 280 285
 Ile Tyr Ser Leu Arg Asn Ala Glu Val Lys Gly Ala Leu Lys Arg Val
 290 295 300
 Leu Trp Lys Gln Arg Ser Lys
 305 310

<210> 482
 <211> 936
 <212> DNA
 <213> Homo sapiens

<400> 482
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 gcactggcga ttctcctctg tggactcttc tctgtcttct atacactcac cctgctgggg 120
 aatgggggtca tctttgggat tatctgcctg gactctaagc ttcacacacc catgtacttc 180
 ttcctctcac acctggccat cattgacatg tcctatgctt ccaacaatgt tccaagatg 240
 ttggcaaac taatgaacca gaaaagcacc atctcctttg ttccatgcat aatgcagact 300
 tttttgtatt tggcttttgc tggttacagag tgcttgattt tgggtggatg gtcctatgat 360
 aggtatgtgg ccactctgcca ccttttccag tacactgtca tcatgagctg gagagtgtgc 420
 acgatcctgg cctcaacatg ctggataatt agctttctca tggctctggg ccatataact 480
 catattctga ggccgccttt ttgtggccca caaaagatca accactttat ctgtcaaata 540
 atgtccgtat tcaaattggc ctgtgctggc cctaggtctca accaggtggg cctatatgag 600
 ggttctgcgt tcatcgtaga ggggcgcgtc tgcttgagc tgggtctcaa cttgcacatc 660
 ctgtcgcgcc atcttgagga tccagtaatg gggagggccg cagaccgact tactcttct 720
 gctccttccc acctttgcat ggtgggactc ctttttggca gcaccatggg catgtacatg 780
 gcccccaagt cccgccacc tgaggagcag cagaagggtc tttccctgtt ttacagcctt 840
 ttcaaccgca tgctgaacc cttgatctac agcctgagga acgcagaggt caagggtgcc 900
 ctgaaaagag tgttgtggaa acagagatca aagtga 936

<210> 483
 <211> 310
 <212> PRT
 <213> Homo sapiens

<400> 483
 Met Glu Ser Asn Gln Thr Trp Ile Thr Glu Val Ile Leu Leu Gly Phe
 1 5 10 15

Gln Val Asp Pro Ala Leu Glu Leu Phe Leu Phe Gly Phe Phe Leu Leu
 20 25 30
 Phe Tyr Ser Leu Thr Leu Met Gly Asn Gly Ile Ile Leu Gly Leu Ile
 35 40 45
 Tyr Leu Asp Ser Arg Leu His Thr Pro Met Tyr Val Phe Leu Ser His
 50 55 60
 Leu Ala Ile Val Asp Met Ser Tyr Ala Ser Ser Thr Val Pro Lys Met
 65 70 75 80
 Leu Ala Asn Leu Val Met His Lys Lys Val Ile Ser Phe Ala Pro Cys
 85 90 95
 Ile Leu Gln Thr Phe Leu Tyr Leu Ala Phe Ala Ile Thr Glu Cys Leu
 100 105 110
 Ile Leu Val Met Met Cys Tyr Asp Arg Tyr Val Ala Ile Cys His Pro
 115 120 125
 Leu Gln Tyr Thr Leu Ile Met Asn Trp Arg Val Cys Thr Val Leu Ala
 130 135 140
 Ser Thr Cys Trp Ile Phe Ser Phe Leu Leu Ala Leu Val His Ile Thr
 145 150 155 160
 Leu Ile Leu Arg Leu Pro Phe Cys Gly Pro Gln Lys Ile Asn His Phe
 165 170 175
 Phe Cys Gln Ile Met Ser Val Phe Lys Leu Ala Cys Ala Asp Thr Arg
 180 185 190
 Leu Asn Gln Val Val Leu Phe Ala Gly Ser Ala Phe Ile Leu Val Gly
 195 200 205
 Pro Leu Cys Leu Val Leu Val Ser Tyr Leu His Ile Leu Val Ala Ile
 210 215 220
 Leu Arg Ile Gln Ser Gly Glu Gly Arg Arg Lys Ala Phe Ser Thr Cys
 225 230 235 240
 Ser Ser His Leu Cys Val Val Gly Leu Phe Phe Gly Ser Ala Ile Val
 245 250 255
 Met Tyr Met Ala Pro Lys Ser Ser His Ser Gln Glu Arg Arg Lys Ile
 260 265 270
 Leu Ser Leu Phe Tyr Ser Leu Phe Asn Pro Ile Leu Asn Pro Leu Ile
 275 280 285
 Tyr Ser Leu Arg Asn Ala Glu Val Lys Gly Ala Leu Lys Arg Val Leu
 290 295 300
 Trp Lys Gln Arg Ser Met
 305 310

<210> 484
 <211> 933
 <212> DNA
 <213> Homo sapiens

<400> 484
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 aatgggatta tcctggggct catctacttg gactctagac tgcacacacc catgtatgtc 180
 ttctgtcac acctggccat tgtggacatg tcctatgcct cgagtactgt ccctaagatg 240
 ctagcaaatc ttgtgatgca caaaaaagtc atctcctttg ctcccttgcatt acttcagact 300
 tttttgtatt tggcgtttgc tattacagag tgtctgattt tgggtgatgat gtgctatgat 360
 cggtatgtgg caatctgtca ccccttgcaa tacaccctca ttatgaactg gagagtgtgc 420
 actgtcctgg cctcaacttg ctggatatatt agcttttctct tggctctggg ccatattact 480
 cttattctga ggctgccttt ttgtggccca caaaagatca accacttttt ctgtcaaatc 540
 atgtccgtat tcaaattggc ctgtgctgac actaggctca accaggtggg cctattttgcg 600
 ggttctgcgt tcatcttagt ggggcccgtc tgcttggtgc tggctctcta cttgcacatc 660
 ctggtggcca tcttgaggat ccagctctggg gagggccgca gaaaggcctt ctctacctgc 720
 tcctcccacc tctgcgtggt ggggcttttc tttggcagcg ccattgtcat gtacatggcc 780
 cccaagtcaa gccattctca agaacggagg aagatccttt ccctgtttta cagccttttc 840
 aaccgatcc tgaacccct catctacagc cttaggaatg cagaggtgaa aggggctcta 900
 aagagagtcc tttggaaaca gagatcaatg tga 933

<210> 485
 <211> 310
 <212> PRT
 <213> Homo sapiens

<400> 485
 Met Gly Asp Asn Gln Ser Arg Val Thr Glu Phe Ile Leu Val Gly Phe
 1 5 10 15
 Gln Leu Ser Val Glu Met Glu Val Leu Leu Phe Trp Ile Phe Ser Leu
 20 25 30
 Leu Tyr Leu Phe Ser Leu Leu Ala Asn Gly Met Ile Leu Gly Leu Ile
 35 40 45
 Cys Leu Asp Pro Arg Leu Arg Thr Pro Met Tyr Phe Phe Leu Ser His
 50 55 60
 Leu Ala Val Ile Asp Ile Tyr Tyr Ala Ser Ser Asn Leu Leu Asn Met
 65 70 75 80
 Leu Glu Asn Leu Val Lys His Lys Lys Thr Ile Ser Phe Ile Ser Cys
 85 90 95
 Ile Met Gln Met Ala Leu Tyr Leu Thr Phe Ala Ala Ala Val Cys Met
 100 105 110
 Ile Leu Val Val Met Ser Tyr Asp Arg Phe Val Ala Ile Cys His Pro
 115 120 125
 Leu His Tyr Thr Val Ile Met Asn Trp Arg Val Cys Thr Val Leu Ala

130	135	140
Ile Thr Ser Trp Ala Cys Gly Phe Ser Leu Ala Leu Ile Asn Leu Ile		
145	150	155 160
Leu Leu Leu Arg Leu Pro Phe Cys Gly Pro Gln Glu Val Asn His Phe		
	165	170 175
Phe Gly Glu Ile Leu Ser Val Leu Lys Leu Ala Cys Ala Asp Thr Trp		
	180	185 190
Ile Asn Glu Ile Phe Val Phe Ala Gly Gly Val Phe Val Leu Val Gly		
	195	200 205
Pro Leu Ser Leu Met Leu Ile Ser Tyr Met Arg Ile Leu Leu Ala Ile		
	210	215 220
Leu Lys Ile Gln Ser Lys Glu Gly Arg Lys Lys Ala Phe Ser Thr Cys		
	225	230 235 240
Ser Ser His Leu Cys Val Val Gly Leu Tyr Phe Gly Met Ala Met Val		
	245	250 255
Val Tyr Leu Val Pro Asp Asn Ser Gln Arg Gln Lys Gln Gln Lys Ile		
	260	265 270
Leu Thr Leu Phe Tyr Ser Leu Phe Asn Pro Leu Leu Asn Pro Leu Ile		
	275	280 285
Tyr Ser Leu Arg Asn Ala Gln Val Lys Gly Ala Leu Tyr Arg Ala Leu		
	290	295 300
Gln Lys Lys Arg Thr Met		
305	310	

<210> 486

<211> 933

<212> DNA

<213> Homo sapiens

<400> 486

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aatggcatga	tcttggggct	catctgtctg	gatcccagac	tgcgcacccc	catgtacttc	180
ttcctgtcac	acttgccgt	cattgacata	tactatgctt	ccagcaattt	gctcaacatg	240
ctggaaaacc	tagtgaaaca	caaaaaaact	atctcgttca	tctcttgcat	tatgcagatg	300
gctttgtatt	tgacttttgc	tgctgcagtg	tgcatgattt	tggtgggtgat	gtcctatgac	360
agatttgtgg	cgatctgcc	tcccctgcat	tacactgtca	tcatgaactg	gagagtgtgc	420
acagtactgg	ctattacttc	ctgggcatgt	ggattttccc	tggccctcat	aaatctaatt	480
ctccttctaa	ggctgccctt	ctgtgggccc	caggagggtga	accacttctt	cggtgaaatt	540
ctgtctgtcc	tcaaaactggc	ctgtgcagac	acctggatta	atgaaatttt	tgtctttgct	600
gggtggtgtg	ttgtcttagt	cgggcccctt	tccttgatgc	tgatctccta	catgcgcatc	660
ctcttgcca	tctgaagat	ccagtcaaag	gagggccgca	aaaaagcctt	ttccacctgc	720
tctctccacc	tctgtgtggt	tgggctttac	tttggcatgg	ccatgggtggt	ttacctggtc	780
ccagacaaca	gtcaacgaca	gaagcagcag	aaaattctca	ccctgtttta	cagccttttc	840
aaccattg	tgaacccct	catctacagc	ctgcggaatg	ctcaagtga	gggtgcctta	900

tacagagcac tgcagaaaaa gaggaccatg tga

933

<210> 487

<211> 312

<212> PRT

<213> Homo sapiens

<400> 487

Met	Pro	Ser	Ile	Asn	Asp	Thr	His	Phe	Tyr	Pro	Pro	Phe	Phe	Leu	Leu
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Leu	Gly	Ile	Pro	Gly	Leu	Asp	Thr	Leu	His	Ile	Trp	Ile	Ser	Phe	Pro
			20					25					30		
Phe	Cys	Ile	Val	Tyr	Leu	Ile	Ala	Ile	Val	Gly	Asn	Met	Thr	Ile	Leu
	35						40					45			
Phe	Val	Ile	Lys	Thr	Glu	His	Ser	Leu	His	Gln	Pro	Met	Phe	Tyr	Phe
	50					55				60					
Leu	Ala	Met	Leu	Ser	Met	Ile	Asp	Leu	Gly	Leu	Ser	Thr	Ser	Thr	Ile
65					70				75						80
Pro	Lys	Met	Leu	Gly	Ile	Phe	Trp	Phe	Asn	Leu	Gln	Glu	Ile	Ser	Phe
			85						90					95	
Gly	Gly	Cys	Leu	Leu	Gln	Met	Phe	Phe	Ile	His	Met	Phe	Thr	Gly	Met
			100					105					110		
Glu	Thr	Val	Leu	Leu	Val	Val	Met	Ala	Tyr	Asp	Arg	Phe	Val	Ala	Ile
		115					120					125			
Cys	Asn	Pro	Leu	Gln	Tyr	Thr	Met	Ile	Leu	Thr	Asn	Lys	Thr	Ile	Ser
	130					135					140				
Ile	Leu	Ala	Ser	Val	Val	Val	Gly	Arg	Asn	Leu	Val	Leu	Val	Thr	Pro
145					150				155						160
Phe	Val	Phe	Leu	Ile	Leu	Arg	Leu	Pro	Phe	Cys	Gly	His	Asn	Ile	Val
			165						170					175	
Pro	His	Thr	Tyr	Cys	Glu	His	Arg	Gly	Leu	Ala	Gly	Leu	Ala	Cys	Ala
			180					185					190		
Pro	Ile	Lys	Ile	Asn	Ile	Ile	Tyr	Gly	Leu	Met	Val	Ile	Ser	Tyr	Ile
		195					200					205			
Ile	Val	Asp	Val	Ile	Leu	Ile	Ala	Ser	Ser	Tyr	Val	Leu	Ile	Leu	Arg
	210					215					220				
Ala	Val	Phe	Arg	Leu	Pro	Ser	Gln	Asp	Val	Arg	Leu	Lys	Ala	Phe	Asn
225					230					235					240
Thr	Cys	Gly	Ser	His	Val	Cys	Val	Met	Leu	Cys	Phe	Tyr	Thr	Pro	Ala
				245					250					255	

Phe Phe Ser Phe Met Thr His Arg Phe Gly Gln Asn Ile Pro His Tyr
 260 265 270
 Ile His Ile Leu Leu Ala Asn Leu Tyr Val Val Val Pro Pro Ala Leu
 275 280 285
 Asn Pro Val Ile Tyr Gly Val Arg Thr Lys Gln Ile Arg Glu Gln Ile
 290 295 300
 Val Lys Ile Phe Val Gln Lys Glu
 305 310

<210> 488
 <211> 939
 <212> DNA
 <213> Homo sapiens

<400> 488
 atgccttcta tcaatgacac ccacttctat ccccccttct tcctcctgct aggaatacca 60
 ggactggaca ctttacatat ctggatttct ttcccattct gtattgtgta cctgattgcc 120
 attgtgggga atatgaccat tctctttgtg atcaaaaactg aacatagtct acaccagccc 180
 atgttctact tcctggccat gttgtctatg attgatctgg gtctgtccac atccactatc 240
 cccaaaatgc taggaatctt ctggttcaac ctccaagaga tcagctttgg gggatgcctt 300
 cttcagatgt tctttattca catgtttaca ggcattggaga ctgttctgtt ggtgggtcatg 360
 gcttatgacc gctttgttgc catctgcaac cctctccagt acaccatgat cctcaccaat 420
 aaaaccatca gtatcctagc ttctgtgggt gttggaagaa atttagttct tgtaacccca 480
 tttgtgtttc tcattctgcg tctgccattc tgtgggcata acatcgtacc tcacacatac 540
 tgtgagcaca ggggtctggc cgggttggcc tgtgcaccca ttaagatcaa cataatctat 600
 gggctcatgg tgatttctta tattattgtg gatgtgatct taattgcctc ttctatgtg 660
 cttatcctta gagctgtttt tcgccttccc tctcaagatg tccgactaaa ggcccttcaat 720
 acctgtgggt ctcatgtctg tgttatgctg tgcttttaca caccagcatt tttttctttt 780
 atgacacatc gttttggcca aaacattccc cactatatcc atattctttt ggctaacctg 840
 tatgtggttg tcccacctgc ccttaaccct gtcatttatg gagtcaggac caagcagatc 900
 cgagagcaaa ttgtgaaaat atttgtacag aaagaataa 939

<210> 489
 <211> 327
 <212> PRT
 <213> Homo sapiens

<400> 489
 Met Leu His Thr Asn Asn Thr Gln Phe His Pro Ser Thr Phe Leu Val
 1 5 10 15
 Val Gly Val Pro Gly Leu Glu Asp Val His Val Trp Ile Gly Phe Pro
 20 25 30
 Phe Phe Ala Val Tyr Leu Thr Ala Leu Leu Gly Asn Ile Ile Ile Leu
 35 40 45
 Phe Val Ile Gln Thr Glu Gln Ser Leu His Gln Pro Met Phe Tyr Phe
 50 55 60
 Leu Ala Met Leu Ala Gly Thr Asp Leu Gly Leu Ser Thr Ala Thr Ile
 65 70 75 80


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gggctggaag atgtgcatgt atggattggc ttcccccttct ttgcggtgta tctaacagcc 120
cttctagggg acatcattat cctgttttggtg atacagactg aacagagcct ccaccaaccc 180
atgtttttact tcctagccat gttggccggc actgatctgg gcttgtctac agcaaccatc 240
cccaagatgc tgggaatttt ctgggtttaat cttggagaga ttgcatttgg tgccctgcac 300
acacagatgt ataccattca tatatgcact ggcctggagt ctgtggtact gacagtcacg 360
ggcatagatc gctatattgc catctgcaac cccctgagat atagcatgat ccttaccac 420
aaggtaatag ccattctggg catagtcac atgtgcagga ctttgggtatt tgtgactcca 480
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tgtgaacaca tgggcttggc aaagttagct tgtgccagta ttaatgttat atatggattg 600
attgccttct cagtgggata cattgacatt tctgtgattg gattttccta tgtccagatc 660
ctccgagctg tcttccatct cccagcctgg gatgcccggc ttaaggcact cagcacatgt 720
ggctctcacg tctgtgttat gttggctttc tacctgccag ccctcttttc cttcatgaca 780
caccgctttg gccacaacat ccctcattac atccacattc ttctggccaa tctgtatgtg 840
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<210> 491

<211> 309

<212> PRT

<213> Homo sapiens

<400> 491

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Met Lys Asn Lys Thr Val Leu Thr Glu Phe Ile Leu Leu Gly Leu Thr
  1              5              10              15

Asp Val Pro Glu Leu Gln Val Ala Val Phe Thr Phe Leu Phe Leu Ala
      20              25              30

Tyr Leu Leu Ser Ile Leu Gly Asn Leu Thr Ile Leu Ile Leu Thr Leu
      35              40              45

Leu Asp Ser His Leu Gln Thr Pro Met Tyr Phe Phe Leu Arg Asn Phe
      50              55              60

Ser Phe Leu Glu Ile Ser Phe Thr Asn Ile Phe Ile Pro Arg Val Leu
      65              70              75              80

Ile Ser Ile Thr Thr Gly Asn Lys Ser Ile Ser Phe Ala Gly Cys Phe
      85              90              95

Thr Gln Tyr Phe Phe Ala Met Phe Leu Gly Ala Thr Glu Phe Tyr Leu
      100              105              110

Leu Ala Ala Met Ser Tyr Asp Arg Tyr Val Ala Ile Cys Lys Pro Leu
      115              120              125

His Tyr Thr Thr Ile Met Ser Ser Arg Ile Cys Ile Gln Leu Ile Phe
      130              135              140

Cys Ser Trp Leu Gly Gly Leu Met Ala Ile Ile Pro Thr Ile Thr Leu
      145              150              155              160

Met Ser Gln Gln Asp Phe Cys Ala Ser Asn Arg Leu Asn His Tyr Phe
      165              170              175

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Cys Asp Tyr Glu Pro Leu Leu Glu Leu Ser Cys Ser Asp Thr Ser Leu
 180 185 190
 Ile Glu Lys Val Val Phe Leu Val Ala Ser Val Thr Leu Val Val Thr
 195 200 205
 Leu Val Leu Val Ile Leu Ser Tyr Ala Phe Ile Ile Lys Thr Ile Leu
 210 215 220
 Lys Leu Pro Ser Ala Gln Gln Arg Thr Lys Ala Phe Ser Thr Cys Ser
 225 230 235 240
 Ser His Met Ile Val Ile Ser Leu Ser Tyr Gly Ser Cys Met Phe Met
 245 250 255
 Tyr Ile Asn Pro Ser Ala Lys Glu Gly Asp Thr Phe Asn Lys Gly Val
 260 265 270
 Ala Leu Leu Ile Thr Ser Val Ala Pro Leu Leu Asn Pro Phe Ile Tyr
 275 280 285
 Thr Leu Arg Asn Gln Gln Val Lys Gln Pro Phe Lys Asp Met Val Lys
 290 295 300
 Lys Leu Leu Asn Leu
 305

<210> 492
 <211> 930
 <212> DNA
 <213> Homo sapiens

<400> 492
 atgaaaaata aaaccgtggt aactgagttt atccttctgg gtctaacaga tgtccctgaa 60
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 ctgactatcc tcatcctcac cttgctggac tcccaccttc agactcccat gtattttctt 180
 ctccggaact tctccttctt ggaaatttcc ttcacaaaca tcttcattcc aagggtcctg 240
 attagcatca caacaggga caagagtatc agctttgctg gctgcttcac tcagtatttc 300
 tttgccatgt tccttggggc tacagagttt taccttctgg ctgccatgtc ctatgaccgc 360
 tatgtggcca tctgcaaacc tctgcattac accaccatca tgagcagcag aatctgcac 420
 cagctgattt tctgctcttg gctgggtggg ctaatggcta ttataccaac aatcacctcg 480
 atgagtcagc aggacttttg tgcattcaac agactgaatc attacttctg tgactatgag 540
 cctcttctgg aactctcatg ttcagacaca agcctcatag agaaggttgt ctttcttgtg 600
 gcatctgtga ccctggtggt cactctggtg ctagtgattc tctcctatgc attcattatc 660
 aagactattc tgaagctccc ctctgcccac caaaggacaa aagccttttc cacatgttct 720
 tcccacatga ttgtcatctc cctctcttac ggaagctgca tgtttatgta cattaatccc 780
 tctgcaaaag aaggggatac attcaacaag ggagtagctc tactcattac ttcagttgct 840
 cctttgttga acccctttat ttacacccta aggaaccaac aggtaaaaca acccttcaag 900
 gatatggtca aaaagcttct gaatctttaa 930

<210> 493
 <211> 317
 <212> PRT
 <213> Homo sapiens

<400> 493

Met	Glu	Gly	Lys	Asn	Gln	Thr	Ala	Pro	Ser	Glu	Phe	Ile	Ile	Leu	Gly	
1				5					10					15		
Phe	Asp	His	Leu	Asn	Glu	Leu	Gln	Tyr	Leu	Leu	Phe	Thr	Ile	Phe	Phe	
			20					25					30			
Leu	Thr	Tyr	Ile	Cys	Thr	Leu	Gly	Gly	Asn	Val	Phe	Ile	Ile	Val	Val	
		35					40					45				
Thr	Ile	Ala	Asp	Ser	His	Leu	His	Thr	Pro	Met	Tyr	Tyr	Phe	Leu	Gly	
	50					55					60					
Asn	Leu	Ala	Leu	Ile	Asp	Ile	Cys	Tyr	Thr	Thr	Thr	Asn	Val	Pro	Gln	
65					70					75					80	
Met	Met	Val	His	Leu	Leu	Ser	Glu	Lys	Lys	Ile	Ile	Ser	Tyr	Gly	Gly	
				85					90					95		
Cys	Val	Thr	Gln	Leu	Phe	Ala	Phe	Ile	Phe	Phe	Val	Gly	Ser	Glu	Cys	
			100					105					110			
Leu	Leu	Leu	Ala	Ala	Met	Ala	Tyr	Asp	Arg	Tyr	Ile	Ala	Ile	Cys	Lys	
		115					120					125				
Pro	Leu	Arg	Tyr	Ser	Phe	Ile	Met	Asn	Lys	Ala	Leu	Cys	Ser	Trp	Leu	
	130					135					140					
Ala	Ala	Ser	Cys	Trp	Thr	Cys	Gly	Phe	Leu	Asn	Ser	Val	Leu	His	Thr	
145					150					155					160	
Val	Leu	Thr	Phe	His	Leu	Pro	Phe	Cys	Gly	Asn	Asn	Gln	Ile	Asn	Tyr	
				165					170					175		
Phe	Phe	Cys	Asp	Ile	Pro	Pro	Leu	Leu	Ile	Leu	Ser	Cys	Gly	Asp	Thr	
			180					185					190			
Ser	Leu	Asn	Glu	Leu	Ala	Leu	Leu	Ser	Ile	Gly	Ile	Leu	Ile	Ser	Trp	
		195					200					205				
Thr	Pro	Phe	Leu	Cys	Ile	Ile	Leu	Ser	Tyr	Leu	Tyr	Ile	Ile	Ser	Thr	
	210					215					220					
Ile	Leu	Arg	Ile	Arg	Ser	Ser	Glu	Gly	Arg	His	Lys	Ala	Phe	Ser	Thr	
225					230					235					240	
Cys	Ala	Ser	His	Leu	Leu	Ile	Val	Ile	Leu	Tyr	Tyr	Gly	Ser	Ala	Ile	
				245					250					255		
Phe	Thr	Tyr	Val	Arg	Pro	Ile	Ser	Ser	Tyr	Ser	Leu	Glu	Lys	Asp	Arg	
			260					265					270			
Leu	Ile	Ser	Val	Leu	Tyr	Ser	Val	Val	Thr	Pro	Met	Leu	Asn	Pro	Val	
		275					280					285				
Ile	Tyr	Thr	Leu	Arg	Asn	Lys	Asp	Ile	Lys	Glu	Ala	Val	Lys	Ala	Ile	
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Gly Arg Lys Trp Gln Pro Pro Val Phe Ser Ser Asp Ile
 305 310 315

<210> 494
 <211> 954
 <212> DNA
 <213> Homo sapiens

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<210> 495
 <211> 314
 <212> PRT
 <213> Homo sapiens

<400> 495
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 35 40 45
 Gly Leu Ile Leu Leu Ile Arg Ala Asp Thr Ser Leu Asn Thr Pro Met
 50 55 60
 Tyr Phe Phe Leu Ser Asn Leu Ala Phe Val Asp Phe Cys Tyr Ser Ser
 65 70 75 80
 Val Ile Thr Pro Lys Met Leu Gly Asn Phe Leu Tyr Lys Gln Asn Val
 85 90 95
 Ile Ser Phe Asp Ala Cys Ala Thr Gln Leu Gly Cys Phe Leu Thr Phe
 100 105 110
 Met Ile Ser Glu Ser Leu Leu Leu Ala Ser Met Ala Tyr Asp Arg Tyr

115	120	125
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130	135	140
Ile Cys Ile Gln Leu Val Ala Val Pro Tyr Ser Tyr Ser Phe Leu Met		
145	150	155 160
Ala Leu Phe His Thr Ile Leu Thr Phe Arg Leu Ser Tyr Cys His Ser		
	165	170 175
Asn Ile Val Asn His Phe Tyr Cys Asp Asp Met Pro Leu Leu Arg Leu		
	180	185 190
Thr Cys Ser Asp Thr Arg Phe Lys Gln Leu Trp Ile Phe Ala Cys Ala		
	195	200 205
Gly Ile Met Phe Ile Ser Ser Leu Leu Ile Val Phe Val Ser Tyr Met		
	210	215 220
Phe Ile Ile Ser Ala Ile Leu Arg Met His Ser Ala Glu Gly Arg Gln		
	225	230 235 240
Lys Ala Phe Ser Thr Cys Gly Ser His Met Leu Ala Val Thr Ile Phe		
	245	250 255
Tyr Gly Thr Leu Ile Phe Met Tyr Leu Gln Pro Ser Ser Ser His Ala		
	260	265 270
Leu Asp Thr Asp Lys Met Ala Ser Val Phe Tyr Thr Val Ile Ile Pro		
	275	280 285
Met Leu Asn Pro Leu Ile Tyr Ser Leu Gln Asn Lys Glu Val Lys Glu		
	290	295 300
Ala Leu Lys Lys Ile Ile Ile Asn Lys Asn		
305	310	

<210> 496

<211> 945

<212> DNA

<213> Homo sapiens

<400> 496

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<210> 497

<211> 324

<212> PRT

<213> Homo sapiens

<400> 497

Met	Ala	Glu	Val	Asn	Ile	Ile	Tyr	Val	Thr	Val	Phe	Ile	Leu	Lys	Gly
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Ile	Thr	Asn	Arg	Pro	Glu	Leu	Gln	Ala	Pro	Cys	Phe	Gly	Val	Phe	Leu
		20						25					30		
Val	Ile	Tyr	Leu	Val	Thr	Val	Leu	Gly	Asn	Leu	Gly	Leu	Ile	Thr	Leu
		35					40					45			
Ile	Lys	Ile	Asp	Thr	Arg	Leu	His	Thr	Pro	Met	Tyr	Tyr	Phe	Leu	Ser
	50					55					60				
His	Leu	Ala	Phe	Val	Asp	Leu	Cys	Tyr	Ser	Ser	Ala	Ile	Thr	Pro	Lys
65					70					75					80
Met	Met	Val	Asn	Phe	Val	Val	Glu	Arg	Asn	Thr	Ile	Pro	Phe	His	Ala
				85					90					95	
Cys	Ala	Thr	Gln	Leu	Gly	Cys	Phe	Leu	Thr	Phe	Met	Ile	Thr	Glu	Cys
			100					105					110		
Phe	Leu	Leu	Ala	Ser	Met	Ala	Tyr	Asp	Cys	Tyr	Val	Ala	Ile	Cys	Ser
	115						120					125			
Pro	Leu	His	Tyr	Ser	Thr	Leu	Met	Ser	Arg	Arg	Val	Cys	Ile	Gln	Leu
	130					135					140				
Val	Ala	Val	Pro	Tyr	Ile	Tyr	Ser	Phe	Leu	Val	Ala	Leu	Phe	His	Thr
145					150					155					160
Val	Ile	Thr	Phe	Arg	Leu	Thr	Tyr	Cys	Gly	Pro	Asn	Leu	Ile	Asn	His
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Phe	Tyr	Cys	Asp	Asp	Leu	Pro	Phe	Leu	Ala	Leu	Ser	Cys	Ser	Asp	Thr
			180					185					190		
His	Met	Lys	Glu	Ile	Leu	Ile	Phe	Ala	Phe	Ala	Gly	Phe	Asp	Met	Ile
		195					200					205			
Ser	Ser	Ser	Ser	Ile	Val	Leu	Thr	Ser	Tyr	Ile	Phe	Ile	Ile	Ala	Ala
	210					215					220				
Ile	Leu	Arg	Ile	Arg	Ser	Thr	Gln	Gly	Gln	His	Lys	Ala	Ile	Ser	Thr
225					230					235					240

Cys Gly Ser His Met Val Thr Val Thr Ile Phe Tyr Gly Thr Leu Ile
 245 250 255
 Phe Met Tyr Leu Gln Pro Lys Ser Asn His Ser Leu Asp Thr Asp Lys
 260 265 270
 Met Ala Ser Val Phe Tyr Thr Val Val Ile Pro Met Leu Asn Pro Leu
 275 280 285
 Ile Tyr Ser Leu Arg Asn Lys Glu Val Lys Asp Ala Ser Lys Lys Ala
 290 295 300
 Leu Asp Lys Gly Cys Glu Asn Leu Gln Ile Leu Thr Phe Leu Lys Ile
 305 310 315 320
 Arg Lys Leu Tyr

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 <211> 975
 <212> DNA
 <213> Homo sapiens

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 agaaaacttt attaa 975

<210> 499
 <211> 309
 <212> PRT
 <213> Homo sapiens

<400> 499
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 20 25 30
 Tyr Met Leu Ser Ile Leu Gly Asn Leu Thr Ile Ile Thr Leu Thr Leu

35					40					45					
Leu	Asp	Pro	His	Leu	Gln	Thr	Pro	Met	Tyr	Phe	Phe	Leu	Arg	Asn	Phe
50						55					60				
Ser	Phe	Leu	Glu	Ile	Ser	Phe	Thr	Ser	Ile	Phe	Ile	Pro	Arg	Phe	Leu
65					70					75					80
Thr	Ser	Met	Thr	Thr	Gly	Asn	Lys	Val	Ile	Ser	Phe	Ala	Gly	Cys	Leu
				85					90					95	
Thr	Gln	Tyr	Phe	Phe	Ala	Ile	Phe	Leu	Gly	Ala	Thr	Glu	Phe	Tyr	Leu
			100					105					110		
Leu	Ala	Ser	Met	Ser	Tyr	Asp	Arg	Tyr	Val	Ala	Ile	Cys	Lys	Pro	Leu
	115					120						125			
His	Tyr	Leu	Thr	Ile	Met	Ser	Ser	Arg	Val	Cys	Ile	Gln	Leu	Val	Phe
	130					135					140				
Cys	Ser	Trp	Leu	Gly	Gly	Phe	Leu	Ala	Ile	Leu	Pro	Pro	Ile	Ile	Leu
145					150					155					160
Met	Thr	Gln	Val	Asp	Phe	Cys	Val	Ser	Asn	Ile	Leu	Asn	His	Tyr	Tyr
			165						170					175	
Cys	Asp	Tyr	Gly	Pro	Leu	Val	Glu	Leu	Ala	Cys	Ser	Asp	Thr	Ser	Leu
			180					185					190		
Leu	Glu	Leu	Met	Val	Ile	Leu	Leu	Ala	Val	Val	Thr	Leu	Met	Val	Thr
	195						200					205			
Leu	Val	Leu	Val	Thr	Leu	Ser	Tyr	Thr	Tyr	Ile	Ile	Arg	Thr	Ile	Leu
	210					215						220			
Arg	Ile	Pro	Ser	Ala	Gln	Gln	Arg	Thr	Lys	Ala	Phe	Ser	Thr	Cys	Ser
225					230					235					240
Ser	His	Met	Ile	Val	Ile	Ser	Leu	Ser	Tyr	Gly	Ser	Cys	Met	Phe	Met
			245						250					255	
Tyr	Ile	Asn	Pro	Ser	Ala	Lys	Glu	Gly	Gly	Ala	Phe	Asn	Lys	Gly	Ile
			260					265					270		
Ala	Val	Leu	Ile	Thr	Ser	Val	Thr	Pro	Leu	Leu	Asn	Pro	Phe	Ile	Tyr
	275						280					285			
Thr	Leu	Arg	Asn	Gln	Gln	Val	Lys	Gln	Ala	Phe	Lys	Asp	Ser	Val	Lys
	290					295					300				
Lys	Ile	Val	Lys	Leu											
305															

<210> 500
 <211> 930
 <212> DNA

<213> Homo sapiens

<400> 500

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<210> 501

<211> 305

<212> PRT

<213> Homo sapiens

<400> 501

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Leu Ser Phe Leu Gly Val Ser Leu Val Tyr Gly Leu Ile Ile Thr Gly
      20              25              30

Asn Ile Leu Ile Val Val Ser Ile His Thr Glu Thr Cys Leu Cys Thr
      35              40              45

Ser Met Tyr Tyr Phe Leu Gly Ser Leu Ser Gly Ile Glu Ile Cys Tyr
      50              55              60

Thr Ala Val Val Val Pro His Ile Leu Ala Asn Thr Leu Gln Ser Glu
      65              70              75              80

Lys Thr Ile Thr Leu Leu Gly Cys Ala Thr Gln Met Ala Phe Phe Ile
      85              90              95

Ala Leu Gly Ser Ala Asp Cys Phe Leu Leu Ala Ala Met Ala Tyr Asp
      100              105              110

Arg Tyr Val Ala Ile Cys His Pro Leu Gln Tyr Pro Leu Leu Met Thr
      115              120              125

Leu Thr Leu Cys Val His Leu Val Val Ala Ser Val Ile Ser Gly Leu
      130              135              140

Phe Leu Ser Leu Gln Leu Val Ala Phe Ile Phe Ser Leu Pro Phe Cys
      145              150              155              160
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Gln Ala Gln Gly Ile Glu His Phe Phe Cys Asp Val Pro Pro Val Met
 165 170 175
 His Val Val Cys Ala Gln Ser His Ile His Glu Gln Ser Val Leu Val
 180 185 190
 Ala Ala Ile Leu Ala Ile Ala Val Pro Phe Phe Leu Ile Thr Thr Ser
 195 200 205
 Tyr Thr Phe Ile Val Ala Ala Leu Leu Lys Ile His Ser Ala Ala Gly
 210 215 220
 Arg His Arg Ala Phe Ser Thr Cys Ser Ser His Leu Thr Val Val Leu
 225 230 235 240
 Leu Gln Tyr Gly Cys Cys Ala Phe Met Tyr Leu Cys Pro Ser Ser Ser
 245 250 255
 Tyr Asn Pro Lys Gln Asp Arg Phe Ile Ser Leu Val Tyr Thr Leu Gly
 260 265 270
 Thr Pro Leu Leu Asn Pro Leu Ile Tyr Ala Leu Arg Asn Ser Glu Met
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 Lys Gly Ala Val Gly Arg Val Leu Thr Arg Asn Cys Leu Ser Gln Asn
 290 295 300

Ser
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<210> 502
 <211> 918
 <212> DNA
 <213> Homo sapiens

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<210> 503
 <211> 295

<212> PRT

<213> Homo sapiens

<400> 503

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			20					25					30		
Leu	Leu	Leu	Leu	Tyr	Ala	Ile	Ser	Phe	Leu	Gly	Asn	Ile	Leu	Ile	Leu
			35				40					45			
Phe	Ile	Ile	Lys	Glu	Glu	Gln	Ser	Leu	His	Gln	Pro	Met	Tyr	Tyr	Phe
	50					55					60				
Leu	Ser	Leu	Phe	Ser	Val	Asn	Asp	Leu	Gly	Val	Ser	Phe	Ser	Thr	Leu
65					70					75					80
Pro	Thr	Val	Leu	Ala	Ala	Val	Cys	Phe	His	Ala	Pro	Glu	Thr	Thr	Phe
				85					90					95	
Asp	Ala	Cys	Leu	Ala	Gln	Met	Phe	Phe	Ile	His	Phe	Ser	Ser	Trp	Thr
			100					105					110		
Glu	Phe	Gly	Ile	Leu	Leu	Ala	Met	Ser	Phe	Asp	His	Tyr	Val	Ala	Ile
		115					120					125			
Cys	Asn	Pro	Leu	Arg	Tyr	Ala	Thr	Val	Leu	Thr	Asp	Val	Arg	Val	Ala
	130					135					140				
His	Asn	Gly	Ile	Ser	Ile	Val	Ile	Arg	Ser	Phe	Cys	Met	Val	Phe	Pro
145					150					155					160
Leu	Pro	Phe	Leu	Leu	Lys	Arg	Leu	Pro	Phe	Cys	Lys	Ala	Ser	Val	Val
			165						170					175	
Leu	Ala	His	Ser	Tyr	Cys	Leu	His	Ala	Asp	Leu	Ile	Arg	Leu	Pro	Trp
			180					185					190		
Gly	Asp	Thr	Thr	Ile	Asn	Ser	Met	Tyr	Gly	Leu	Phe	Ile	Val	Ile	Ser
		195					200					205			
Ala	Phe	Gly	Val	Asp	Ser	Leu	Leu	Ile	Leu	Leu	Ser	Tyr	Val	Leu	Ile
	210					215					220				
Leu	His	Ser	Val	Leu	Ala	Ile	Ala	Ser	Arg	Gly	Glu	Arg	Leu	Lys	Thr
225					230					235					240
Leu	Asn	Thr	Cys	Val	Ser	His	Ile	Tyr	Ala	Val	Leu	Ile	Phe	Tyr	Val
			245						250					255	
Pro	Met	Val	Ser	Val	Ser	Met	Val	His	Arg	Phe	Gly	Arg	His	Ala	Pro
			260					265					270		
Glu	Tyr	Val	His	Lys	Phe	Met	Ser	Leu	Cys	Thr	Ser	Asn	Ala	Leu	Pro
		275					280					285			

Asn Tyr Leu Phe His Gln Asp
290 295

<210> 504
<211> 888
<212> DNA
<213> Homo sapiens

<400> 504
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<210> 505
<211> 310
<212> PRT
<213> Homo sapiens

<400> 505
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Ile Thr Asn Asn Pro Glu Met Lys Val Thr Leu Phe Ala Val Phe Leu
20 25 30
Ala Val Tyr Ile Ile Asn Phe Ser Ala Asn Leu Gly Met Ile Val Leu
35 40 45
Ile Arg Met Asp Tyr Gln Leu His Thr Pro Met Tyr Phe Phe Leu Ser
50 55 60
His Leu Ser Phe Cys Asp Leu Cys Tyr Ser Thr Ala Thr Gly Pro Lys
65 70 75 80
Met Leu Val Asp Leu Leu Ala Lys Asn Lys Ser Ile Pro Phe Tyr Gly
85 90 95
Cys Ala Leu Gln Phe Leu Val Phe Cys Ile Phe Ala Asp Ser Glu Cys
100 105 110
Leu Leu Leu Ser Val Met Ala Phe Asp Arg Tyr Lys Ala Ile Ile Asn
115 120 125

Pro Leu Leu Tyr Thr Val Asn Met Ser Ser Arg Val Cys Tyr Leu Leu
 130 135 140
 Leu Thr Gly Val Tyr Leu Val Gly Ile Ala Asp Ala Leu Ile His Met
 145 150 155 160
 Thr Leu Ala Phe Arg Leu Cys Phe Cys Gly Ser Asn Glu Ile Asn His
 165 170 175
 Phe Phe Cys Asp Ile Pro Pro Leu Leu Leu Leu Ser Arg Ser Asp Thr
 180 185 190
 Gln Val Asn Glu Leu Val Leu Phe Thr Val Phe Gly Phe Ile Glu Leu
 195 200 205
 Ser Thr Ile Ser Gly Val Phe Ile Ser Tyr Cys Tyr Ile Ile Leu Ser
 210 215 220
 Val Leu Glu Ile His Ser Ala Glu Gly Arg Phe Lys Ala Leu Ser Thr
 225 230 235 240
 Cys Thr Ser His Leu Ser Ala Val Ala Ile Phe Gln Gly Thr Leu Leu
 245 250 255
 Phe Met Tyr Phe Arg Pro Ser Ser Ser Tyr Ser Leu Asp Gln Asp Lys
 260 265 270
 Met Thr Ser Leu Phe Tyr Thr Leu Val Val Pro Met Leu Asn Pro Leu
 275 280 285
 Ile Tyr Ser Leu Arg Asn Lys Asp Val Lys Glu Ala Leu Lys Lys Leu
 290 295 300
 Lys Asn Lys Ile Leu Phe
 305 310

<210> 506

<211> 933

<212> DNA

<213> Homo sapiens

<400> 506

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 ccagagatga aagtgacct atttgctgta ttcttggtg tttatatcat taatttctca 120
 gcaaatcttg gaatgatagt tttaatcaga atggattacc aacttcacac accaatgtat 180
 ttcttctca gtcactctgc tttctgtgat ctctgctatt ctactgcaac tgggccaag 240
 atgctggtag atctacttgc caagaacaag tcaataacct tctatggctg tgctctgcaa 300
 ttcttggtct tctgtatctt tgcagattct gagtgtctac tgctgtcagt gatggccttt 360
 gatcggtaga aggccatcat caacccctg ctctatacag tcaacatgtc tagcagagt 420
 tgctatctac tcttgactgg ggtttatctg gtgggaatag cagatgcttt gatacatatg 480
 aactggcct tccgcctatg cttctgtggg tctaatagaga ttaatcattt cttctgtgat 540
 atccctcctc tcttattact ctctcgtcga gatacacagg tcaatgagtt agtggtattc 600
 accgtctttg gttttattga actgagtacc atttcaggag ttttcatttc ttattgttat 660
 atcatcctat cagtcttggg gatacactct gctgagggga ggttcaaagc tctctctaca 720
 tgcacttccc acttatctgc ggttgcaatt ttccaggga ctctgctctt tatgtatttc 780

cggccaagtt cttcctattc tctagatcaa gataaaatga cctcattggt ttacaccctt 840
 gtgggtccca tggtgaaccc cctgatttat agcctgagga acaaggatgt gaaagaggcc 900
 ctgaaaaaac tgaaaaataa aattttatTTT taa 933

<210> 507
 <211> 312
 <212> PRT
 <213> Homo sapiens

<400> 507
 Met Glu Val Lys Asn Cys Cys Met Val Thr Glu Phe Ile Leu Leu Gly
 1 5 10 15
 Ile Pro His Thr Glu Gly Leu Glu Met Thr Leu Phe Val Leu Phe Leu
 20 25 30
 Pro Phe Tyr Ala Cys Thr Leu Leu Gly Asn Val Ser Ile Leu Val Ala
 35 40 45
 Val Met Ser Ser Ala Arg Leu His Thr Pro Met Tyr Phe Phe Leu Gly
 50 55 60
 Asn Leu Ser Val Phe Asp Met Gly Phe Ser Ser Val Thr Cys Pro Lys
 65 70 75 80
 Met Leu Leu Tyr Leu Met Gly Leu Ser Arg Leu Ile Ser Tyr Lys Asp
 85 90 95
 Cys Val Cys Gln Leu Phe Phe Phe His Phe Leu Gly Ser Ile Glu Cys
 100 105 110
 Phe Leu Phe Thr Val Met Ala Tyr Asp Arg Phe Thr Ala Ile Cys Tyr
 115 120 125
 Pro Leu Arg Tyr Thr Val Ile Met Asn Pro Arg Ile Cys Val Ala Leu
 130 135 140
 Ala Val Gly Thr Trp Leu Leu Gly Cys Ile His Ser Ser Ile Leu Thr
 145 150 155 160
 Ser Leu Thr Phe Thr Leu Pro Tyr Cys Gly Pro Asn Glu Val Asp His
 165 170 175
 Phe Phe Cys Asp Ile Pro Ala Leu Leu Pro Leu Ala Cys Ala Asp Thr
 180 185 190
 Ser Leu Ala Gln Arg Val Ser Phe Thr Asn Val Gly Leu Ile Ser Leu
 195 200 205
 Val Cys Phe Leu Leu Ile Leu Leu Ser Tyr Thr Arg Ile Thr Ile Ser
 210 215 220
 Ile Leu Ser Ile Arg Thr Thr Glu Gly Arg Arg Arg Ala Phe Ser Thr
 225 230 235 240
 Cys Ser Ala His Leu Ile Ala Ile Leu Cys Ala Tyr Gly Pro Ile Ile

Leu Ala Met Leu Asp Ser Ile Asp Leu Ser Leu Ser Thr Ala Thr Ile
 65 70 75 80
 Pro Lys Met Leu Gly Ile Phe Trp Phe Asn Ile Lys Glu Ile Ser Phe
 85 90 95
 Gly Gly Tyr Leu Ser Gln Met Phe Phe Ile His Phe Phe Thr Val Met
 100 105 110
 Glu Ser Ile Val Leu Val Ala Met Ala Phe Asp Arg Tyr Ile Ala Ile
 115 120 125
 Cys Lys Pro Leu Trp Tyr Thr Met Ile Leu Thr Ser Lys Ile Ile Ser
 130 135 140
 Leu Ile Ala Gly Ile Ala Val Leu Arg Ser Leu Tyr Met Val Ile Pro
 145 150 155 160
 Leu Val Phe Leu Leu Leu Arg Leu Pro Phe Cys Gly His Arg Ile Ile
 165 170 175
 Pro His Thr Tyr Cys Glu His Met Gly Ile Ala Arg Leu Ala Cys Ala
 180 185 190
 Ser Ile Lys Val Asn Ile Met Phe Gly Leu Gly Ser Ile Ser Leu Leu
 195 200 205
 Leu Leu Asp Val Leu Leu Ile Ile Leu Ser His Ile Arg Ile Leu Tyr
 210 215 220
 Ala Val Phe Cys Leu Pro Ser Trp Glu Ala Arg Leu Lys Ala Leu Asn
 225 230 235 240
 Thr Cys Gly Ser His Ile Gly Val Ile Leu Ala Phe Ser Thr Pro Ala
 245 250 255
 Phe Phe Ser Phe Phe Thr His Cys Phe Gly His Asp Ile Pro Gln Tyr
 260 265 270
 Ile His Ile Phe Leu Ala Asn Leu Tyr Val Val Val Pro Pro Thr Leu
 275 280 285
 Asn Pro Val Ile Tyr Gly Val Arg Thr Lys His Ile Arg Glu Thr Val
 290 295 300
 Leu Arg Ile Phe Phe Lys Thr Asp His
 305 310

<210> 510

<211> 942

<212> DNA

<213> Homo sapiens

<400> 510

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 gggctagaag atgtgcacat ctggattgga ttcccttttt tctctgtgta tcttattgca 120

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ctcctgggaa atgctgctat cttctttgtg atccaaactg agcagagtct ccatgagccc 180
atgtactact gcctggccat gttggattcc attgacctga gcttgtctac ggccaccatt 240
cccaaaatgc tgggcatctt ctgggttcaat atcaaggaaa tatcttttgg aggctacctt 300
tctcagatgt tcttcattca tttcttctact gtcattggaga gcatcgtatt ggtggccatg 360
gcctttgacc gctacattgc catttgcaaa cctctttggt acaccatgat cctcaccagc 420
aaaatcatca gcctcattgc aggcattgct gtcctgagga gcttgtacat ggtcattcca 480
ctgggtgtttc tcctcttaag gttgcccttc tgtggacatc gtatcatccc tcatacttac 540
tgtgagcaca tgggcattgc ccgtctggcc tgtgccagca tcaaagtcaa cattatgttt 600
ggtcttggca gtatttctct cttgttattg gatgtgctcc ttattattct ctcccatatc 660
aggatcctct atgctgtctt ctgcctgccc tcctgggaag ctcgactcaa agctctcaac 720
acctgtggct ctcacattgg tgttatctta gccttttcta caccagcatt tttctcttct 780
tttacacact gctttggcca tgatattccc caatatatcc acattttctt ggctaatacta 840
tatgtggttg ttctccccc cctcaatcct gtaatctatg gggtcagaac caaacatatt 900
agggagacag tgctgaggat tttcttcaag acagatcact aa 942

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<210> 511
 <211> 312
 <212> PRT
 <213> Homo sapiens

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<400> 511
Met Ala Leu Gly Asn His Ser Thr Ile Thr Glu Phe Leu Leu Leu Gly
  1              5              10              15

Leu Ser Ala Asp Pro Asn Ile Arg Ala Leu Leu Phe Val Leu Phe Leu
          20              25              30

Gly Ile Tyr Leu Leu Thr Ile Met Glu Asn Leu Met Leu Leu Leu Val
      35              40              45

Ile Arg Ala Asp Ser Cys Leu His Lys Pro Met Tyr Phe Phe Leu Ser
      50              55              60

His Leu Ser Phe Val Asp Leu Cys Phe Ser Ser Val Ile Val Pro Lys
      65              70              75              80

Met Leu Glu Asn Leu Leu Ser Gln Arg Lys Thr Ile Ser Val Glu Gly
          85              90              95

Cys Leu Ala Gln Val Phe Phe Val Phe Val Thr Ala Gly Thr Glu Ala
          100              105              110

Cys Leu Leu Ser Gly Met Ala Tyr Asp Arg His Ala Ala Ile Arg Arg
          115              120              125

Pro Leu Leu Tyr Gly Gln Ile Met Gly Lys Gln Leu Tyr Met His Leu
          130              135              140

Val Trp Gly Ser Trp Gly Leu Gly Phe Leu Asp Ala Leu Ile Asn Val
          145              150              155              160

Leu Leu Ala Val Asn Met Val Phe Cys Glu Ala Lys Ile Ile His His
          165              170              175

Tyr Ser Tyr Glu Met Pro Ser Leu Leu Pro Leu Ser Cys Ser Asp Ile
          180              185              190

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Ser Arg Ser Leu Ile Val Leu Leu Cys Ser Thr Leu Leu His Gly Leu
 195 200 205
 Gly Asn Phe Leu Leu Val Phe Leu Ser Tyr Thr Arg Ile Ile Ser Thr
 210 215 220
 Ile Leu Ser Ile Ser Ser Thr Ser Gly Arg Ser Lys Ala Phe Ser Thr
 225 230 235 240
 Cys Ser Ala His Leu Thr Ala Val Thr Leu Tyr Tyr Gly Ser Gly Leu
 245 250 255
 Leu Arg His Leu Met Pro Asn Ser Gly Ser Pro Ile Glu Leu Ile Phe
 260 265 270
 Ser Val Gln Tyr Thr Val Val Thr Pro Met Leu Asn Ser Leu Ile Tyr
 275 280 285
 Ser Leu Lys Asn Lys Glu Val Lys Val Ala Leu Lys Arg Thr Leu Glu
 290 295 300
 Lys Tyr Leu Gln Tyr Thr Arg Arg
 305 310

<210> 512
 <211> 939
 <212> DNA
 <213> Homo sapiens

<400> 512
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 gaaaacctga tgctgctgct cgtgatcagg gctgattctt gtctccataa gcccatgtat 180
 ttcttcctga gtcacctctc ttttgttgat ctctgcttct cttcagtcac tgtgcccagg 240
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 gtcttctttg tgtttgtcac tgcagggact gaagcctgcc ttctctcagg gatggcctat 360
 gaccgccatg ctgccatccg ccgccacta ctttatggac agatcatggg taaacagctg 420
 tataatgcacc ttgtgtgggg ctcatgggga ctgggctttc tggacgcact catcaatgtc 480
 ctcttagctg taaacatggc cttttgtgaa gccaaaatca ttcaccacta cagctatgag 540
 atgccatccc tcctccctct gtctgctct gatattctca gaagcctcat cgttttgtct 600
 tgctccactc tcctacatgg gctgggaaac ttctttttgg tcttcttacc ctacaccctg 660
 ataattctta ccattcctaag catcagctct acctcgggca gaagcaaggc cttctccacc 720
 tgctctgccc acctcactgc agtgacactt tactatggct caggtttgct ccgccatctc 780
 atgccaaact caggttcccc catagagttg atcttctctg tgcagtatac tgtagtcact 840
 cccatgctga attccctcat ctatagcctg aaaaataagg aagtgaaggt agctctgaaa 900
 agaactttgg aaaaatattt gcaatatacc agacgttga 939

<210> 513
 <211> 9
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> MOD_RES

<222> (2)
<223> A or G

<220>
<221> MOD_RES
<222> (3)
<223> Y or F

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 513
Met Xaa Xaa Asp Arg Tyr Val Ala Ile
1 5

<210> 514
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Degenerate
primer

<400> 514
atggsctwtg accghtwygt

20

<210> 515
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<221> MOD_RES
<222> (3)
<223> G or A

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 515
Thr Cys Xaa Ser His Leu
1 5

<210> 516
<211> 17
<212> DNA
<213> Artificial Sequence

<220>
<221> modified_base
<222> (6)

<223> A, T, C or G

<220>

<221> modified_base

<222> (9)

<223> A, T, C or G

<220>

<221> modified_base

<222> (15)

<223> A, T, C or G

<220>

<223> Description of Artificial Sequence: Degenerate
primer

<400> 516

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17

<210> 517

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Degenerate
primer

<220>

<221> modified_base

<222> (20)

<223> A, T, C or G

<220>

<221> modified_base

<222> (22)..(23)

<223> A, T, C or G

<400> 517

ggggtccgga grsrtadatn anngg

25

<210> 518

<211> 29

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Degenerate
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<220>

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<222> (16)

<223> A, T, C or G

<220>
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 <222> (25)
 <223> A, T, C or G

 <400> 518
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29

<210> 519
 <211> 25
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Degenerate
 primer

<220>
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 <222> (20)
 <223> A, T, C or G

<220>
 <221> modified_base
 <222> (22)..(23)
 <223> A, T, C or G

<400> 519
 ggggtccgga grstradatn annngg

25

<210> 520
 <211> 30
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Degenerate
 primer

<220>
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 <222> (16)
 <223> A, T, C or G

<220>
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 <222> (25)
 <223> A, T, C or G

<400> 520
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30

<210> 521
 <211> 25

<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Degenerate
primer

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<222> (20)
<223> A, T, C or G

<220>
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<222> (22)..(23)
<223> A, T, C or G

<400> 521
gggggtccgga grstradatn anngg

25

<210> 522
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<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Degenerate
primer

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<222> (25)
<223> A, T, C or G

<400> 522
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30